CORRECT ANSWERS

1.	d.	41.	d.	81.	c.	121.	c.	161.	a.
2.	b.	42.	c.	82.	b.	122.	d.	162.	c.
3.	b.	43.	b.	83.	d.	123.	c.	163.	a.
4.	b.	44.	a.	84.	c.	124.	c.	164.	c.
5.	c.	45.	d.	85.	a.	125.	c.	165.	b.
6.	b.	46.	b.	86.	c.	126.	b.	166.	c.
7.	d.	47.	a.	87.	a.	127.	b.	167.	a.
8.	c.	48.	b.	88.	a.	128.	a.	168.	d.
9.	a.	49.	a.	89.	c.	129.	c.	169.	b.
10.	c.	50.	a.	90.	c.	130.	c.	170.	d.
11.	a.	51.	b.	91.	c.	131.	a.	171.	a.
12.	b.	52.	a.	92.	a.	132.	d.	172.	d.
13.	d.	53.	c.	93.	d.	133.	d.	173.	c.
14.	b.	54.	d.	94.	b.	134.	a.	174.	d.
15.	a.	55.	b.	95.	d.	135.	b.	175.	b.
16.	d.	56.	d.	96.	d.	136.	d.	176.	c.
17.	a.	57.	b.	97.	a.	137.	b.	177.	c.
18.	c.	58.	a.	98.	a.	138.	b.	178.	a.
19.	a.	59.	a.	99.	d.	139.	b.	179.	c.
20.	b.	60.	d.	100.	d.	140.	c.	180.	d.
21.	b.	61.	b.	101.	b.	141.	d.	181.	c.
22.	c.	62.	a.	102.	c.	142.	d.	182.	d.
23.	d.	63.	b.	103.	d.	143.	a.	183.	c.
24.	a.	64.	c.	104.	d.	144.	d.	184.	c.
25.	c.	65.	d.	105.	d.	145.	c.	185.	b.
26.	c.	66.	c.	106.	a.	146.	d.	186.	d.
27.	b.	67.	a.	107.	b.	147.	b.	187.	b.
28.	b.	68.	a.	108.	d.	148.	c.	188.	b.
29.	b.	69.	a.	109.	b.	149.	b.	189.	c.
30.	b.	70.	d.	110.	c.	150.	c.	190.	a.
31.	b.	71.	b.	111.	a.	151.	c.	191.	c.
32.	d.	72.	d.	112.	b.	152.	d.	192.	b.
33.	d.	73.	b.	113.	a.	153.	c.	193.	c.
34.	d.	74.	a.	114.	a.	154.	d.	194.	c.
35.	b.	75.	a.	115.	b.	155.	b.	195.	c.
36.	c.	76.	d.	116.	b.	156.	d.	196.	b.
37.	c.	77.	d.	117.	d.	157.	b.	197.	d.
38.	d.	78.	b.	118.	c.	158.	b.	198.	c.
39.	c.	79.	a.	119.	a.	159.	c.	199.	c.
40.	d.	80.	d.	120.	b.	160.	c.		

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INTRODUCTION

This publication contains the MCQs of the In-Service Assessments organised by the EBU Examination Committee in 2013 and 2014.

Participation in the EBU In-Service Assessment is open to all residents and urologists. It is meant to provide the participants information regarding their present state of knowledge. Especially for those still in training it may serve as a continuous monitoring system. As they progress in their training, their results should improve over the years. It also provides insight in areas which need additional study and reading.

The content of the assessment covers both clinical and basic sciences. The contents of the MCQs do not only reflect current management of specific pathologies, but focus on issues of basic science as well. The purpose is to stimulate participants to study clinical urology and to acquire some insight in the basic research that will form the basis of urological practice in the future.

Many of the MCQs are rather specific: they have been included in the EBU In-Service Assessment but are in general not suitable for the official EBU Examination in Urology (FEBU). The assessment and the examination can therefore not be compared. Questions included in the EBU Examination in Urology are more general in nature and test knowledge and skills which all European urologists should have.

Please be aware that if you are reading a booklet that is not current, there may be answers that were correct when the questions were written. Medical knowledge may have changed and some of the answers may no longer be accurate.

For more information about the annual In-Service Assessment and other activities visit the EBU website at www.ebu.com.

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197. Which statement about the drugs used for Cushing's disease is correct?

a. Ketoconazole is not used anymore.
b. Aminoglutethimide does not result in salt wasting.
c. Metyrapone blocks the conversion of cholesterol to pregnenolone.
d. Aminoglutethimide blocks the conversion of cholesterol to pregnenolone.

198. Which drug is an inhibitor of the cholinesterase enzyme?

a. Imipramine.
b. Darifenacin.
c. Piridostigmine.
d. Chlorpromazine.

199. The Trendelenburg position:

a. Causes reduced venous return.
b. Causes the downward shift of the diaphragm.
c. Is used in laparoscopic radical prostatectomy.
d. Causes increased functional residual capacity.

192. What is not a proposed action mechanism of PDT?

a. Release of toxic cytokines.
b. Induction of cellular immunity.
c. Intracellular production of singlet oxygen.
d. Endothelial injury to the tumour's micro vessels.

193. On binding to RANK, the RANK Ligand:

a. Develops increased affinity for osteoprotegerin.
b. Inhibits the differentiation of osteoclast precursors.
c. Stimulates the differentiation of osteoclast precursors.
d. Increases the sensitivity of osteoblasts to growth factors and cytokines.

194. Which laser is used as an energy source for photodynamic therapy?

a. CO2.
b. Diode.
c. Argon.
d. Nd : YAG.

195. Polyuria:

a. Is always caused by a metabolic problem.
b. Means a daytime frequency of more than 8 times.
c. Is a measured urine production of >2.8L per 24 hours in a 70 kg adult.
d. Means that an increased proportion of urine output is produced at night.

196. What is the frequency of an incidental adrenal mass in the general population?

a. Less than 1%.
b. From 1 to 10%.
c. From 20 to 30%.
d. More than 30%.

ONCOLOGY

1. A systemic BCG infection or hyper-reaction:

a. Is common and usually occurs days after instillation.
b. Should be managed by using a reduced dose of BCG.
c. Generally occurs when BCG is given 2 weeks after a TURBT.
d. Should be managed with multiple antimicrobial therapies and corticosteroids.

2. Radical nephrectomy and immunotherapy are indicated in:

a. Patients with T3b tumours with good performance status.
b. Untreated patients with metastatic RCC having a good performance status.
c. Patients who have failed neoadjuvant high dose IL-2 with good performance status.
d. Patients with T3 tumours with lung and nodal metastasis having a poor performance status.

3. The percentage of men with a PSA between 4 and 10 ng/mL who have a positive biopsy for prostate cancer is:

a. 5 - 10%.
b. 20 - 30%.
c. 40 - 50%.
d. > 50%.

4. Which statement concerning prostate cancer is correct?

a. DNA ploidy is a good prognosticator in stage cT1.
b. The value of p53 in prostate cancer as a prognostic factor is still unclear.
c. Proliferative activity is established as a valuable prognosticator in prostate cancer.
d. Neuroendocrine differentiation is correlated with better prognosis in prostate cancer.

5. Which statement is correct?

a. PSA is produced only by benign or cancerous prostate cells.
b. PSA values are reliable indicators of progression in hormone-refractory disease.
c. E-cadherin expression is inversely correlated with grade, stage and overall survival in prostate cancer.
d. The appearance of PSA-producing cells in the bloodstream is very helpful in clinical decision-making.

6. Since the best way to diagnose prostate cancer in pre-screened populations is not known, the best solution for the time being seems to be:

a. To use PSA velocity.
b. To use an arbitrary PSA cut-off value.
c. To eliminate men with large prostates.
d. To biopsy every man aged ≥ 55 in order to diagnose all cancers that are ≥ Gleason 7.

7. What is not a typical complication after nephron-sparing surgery?

a. Urinoma / urine fistula.
b. Bleeding of tumour bed.
c. Upper urinary tract obstruction.
d. Deep vein thrombosis / pulmonary embolism.

8. An important or significant upgrading of prostate biopsies is:

a. A biopsy Gleason sum upgrading from 4 to a final pathologic Gleason grade 6.
b. A biopsy Gleason sum upgrading from 5 to a final pathologic Gleason grade 6.
c. A biopsy Gleason sum upgrading from 6 to a final pathologic Gleason grade ≥ 7.
d. A biopsy Gleason sum upgrading from 8 to a final pathologic Gleason grade ≥ 9.

MISCELLANEOUS

187. A surrogate endpoint biomarker:

a. Is used for screening patients to discover cancer at an early stage.
b. Is used to substitute for a clinical endpoint or to measure clinical benefit, harm, or a lack of benefit or harm.
c. Can help identify classical histopathological characteristics in assessing the presence or absence of cancer.
d. Is used to dissect the outcome of patients into different prognostic risk groups thereby allowing individualised management.

188. Which statement about prostate specific antigen (PSA) is not correct?

a. PSA is a serine protease.
b. The free form of PSA has a molecular weight of 92 kDa.
c. PSA has a high homology to human glandular kalikrein (hK2).
d. PSA can be detected in the serum following radical prostatectomy.

189. What is the common feature of a Hemi-Kock pouch and the Sigma-rectum (Mainz II) pouch diversion?

a. The method of anti-reflux mechanism.
b. The diversion is a cutaneous continent one.
c. The diversion is a modified uretero-sigmoidostomy.
d. The segment of the intestine used in pouch construction.

190. What is not characteristic of parathormone action on the kidney?

a. Enhancement of potassium excretion.
b. Enhancement of tubular resorption of Calcium.
c. Suppression of phosphate tubular re-absorption.
d. Stimulation of the production of 1.25-dihydroxy vitamin D.

191. Vascular endothelial growth factor (VEGF) is mainly a modulator of:

a. Apoptosis only in prostate cancer tissue.
b. Angiogenesis only in prostate cancer tissue.
c. Angiogenesis in both prostate cancer and BPH tissue.
d. Stromal-epithelial interaction into the prostate gland.

186. The site of handling by the nephron of the following solutes is the proximal tubule, except:

a. Sodium.
b. Phosphate.
c. Magnesium.
d. Hydrogen ions.

9. What is not considered a contraindication to Radical Perineal Prostatectomy?

a. Age < 50.
b. PSA > 10.
c. Gleason score 9.
d. Very large prostate.

10. The probability of progression-free survival at 7 years for extra-capsular extension of prostate cancer with positive margins in radical prostatectomy specimen and Gleason score of ≤ 6 is approximately:

a. 25%.
b. 45%.
c. 65%.
d. 85%.

11. In a patient who underwent radical nephro-ureterectomy, the pathology report reveals urothelial cell carcinoma with broad-front invasion of the peri-ureteral tissue.
The most appropriate management is:

a. Follow-up.
b. Adjuvant radiotherapy.
c. Adjuvant chemotherapy.
d. Adjuvant chemo-radiotherapy.

12. What is the mean level of serum testosterone, achieved by surgical castration (orchidectomy)?

a. <5 ng/dL.
b. 15 ng/dL.
c. 30 ng/dL.
d. 50 ng/dL.

13. Which metabolites are increased in prostate cancer at magnetic resonance spectroscopic analysis (MRSI)?

a. Citrate.
b. Polyamine and citrate.
c. Choline and Polyamine.
d. Choline and creatine/citrate ratio.

14. The half-life of PSA is between:

a. 1 - 2 days.
b. 2 - 3 days.
c. 4 - 5 days.
d. 1 week.

15. HPC1 (for Hereditary Prostate Cancer) is a specific gene that predisposes men to develop prostate cancer which has been located in:

a. Chromosome 1.
b. Chromosome 8.
c. Chromosome 15.
d. Chromosome 16.

16. Which methods are needed to correctly stage patients with non-seminomatous testicular cancer?

a. PET.
b. PLAP levels.
c. MRI of abdomen.
d. CT scan of abdomen and chest.

17. Which statement is correct?

a. Testis cancer is the most common solid cancer in young men.
b. Seminoma is often metastatic, even if diagnostic delay is short.
c. Testicular self-examination is recommended monthly for all adult men.
d. The incidence of testis cancer is stable in the majority of industrialised countries.

181. Delayed graft function due to acute tubular necrosis following renal cadaver donor transplantation is seen in approximately:

a. 1% of all transplants.
b. 5% of all transplants.
c. 30% of all transplants.
d. 50% of all transplants.

182. Risk factors for ureteral stenosis in renal transplantation do <u>not</u> include:

a. Delayed graft function.
b. Multiple arteries in the graft.
c. Cytomegalovirus (CMV) infection.
d. Female donor graft in a male recipient.

183. Contraindications for kidney transplantation include:

a. History of neoplasia.
b. Obesity with BMI >35.
c. Short life expectancy.
d. Bilateral iliac artery atherosclerosis.

184. Which of the following is a rare cause of renal induced haematuria?

a. Multiple myeloma.
b. Polyartritis nodosa.
c. Henoch-Schönlein purpura.
d. Wegeners' granulomatosus.

185. Renin has the following action:

a. Promotes renal water reabsorption.
b. Catalyses production of Angiotensin I.
c. Raises blood pressure by a direct constriction.
d. Directly promotes renal tubular Na^+ reabsorption.

TRANSPLANTATION/NEPHROLOGY

177. Which statement about surgical complications (urinary fistulas, ureteral strictures, renal artery stenosis) following kidney transplantations is correct?

a. The majority of surgical complications occurs most often in the first year after transplantation.
b. The majority of surgical complications occurs most often in the first three years after transplantation.
c. The majority of surgical complications occurs most often in the first three weeks after transplantation.
d. There is no relation between time and occurrence of complications.

178. Renal distal tubular acidosis is characterised by all of the following, except:

a. Normal pH.
b. Nephrocalcinosis.
c. Systemic acidosis.
d. Increased bone re-absorption.

179. Recent studies suggest that in chronic renal failure patients, erythropoetin should:

a. Be given in the first year after diagnosis.
b. Be given only when blood loss is anticipated.
c. Be used to restore haemoglobin to low normal range.
d. Be used to restore haemoglobin to high normal range.

180. The total renal blood flow is estimated to be:

a. 600 mL/min/1.5 m^2.
b. 900 mL/min/1.5 m^2.
c. 700 mL/min/1.73 m^2.
d. 1200 mL/min/1.73 m^2.

18. Urothelial carcinoma of the posterior urethra most frequently metastasises to the:

a. Bone.
b. Liver.
c. Pelvic lymph nodes.
d. Inguinal lymph nodes.

19. The Von Hippel-Lindau (VHL) protein is a tumour suppressor protein that binds to:

a. Hypoxia-inducible factor (HIF).
b. Mammalian target of rapamycin (mTOR).
c. Vascular endothelial growth factor (VEGF).
d. Platelet-derived growth factor-beta (PDGF-ß).

20. Which agent can be directly instilled into the bladder to sensitise tumour tissue?

a. Tetracycline.
b. Hexaminolevulinate (HAL).
c. Protoporphyrine IX (PpIX).
d. Hematoporphyrin derivative (HpD).

21. When nephron-sparing surgery is proposed for small renal masses of 4 cm in diameter, that are suspected to be renal cell carcinoma, the percentage of tumours that prove to be benign is approximately:

a. 5%.
b. 15%.
c. 30%.
d. 40%.

22. The level of vena cava inferior tumour thrombus in the clinically non-metastatic renal cell carcinoma patient, is:

a. An important and independent prognostic factor.
b. Not important as long as the thrombus can be completely resected.
c. Not important as long as the wall of the vena cava inferior is not invaded.
d. Only relevant when the two major categories are distinguished (below, or above the diaphragm).

23. For which patients is cryoablation best indicated?

a. 50-year-old healthy man with 2.5 cm exophytic lower pole mass.
b. 60-year-old woman with 6 cm renal mass with tumour extension into the renal vein.
c. 65-year-old man with 3 cm left renal mass and multiple pulmonary and liver lesions positive for malignancy on biopsy.
d. 70-year-old woman with 2.8 cm endophytic anterior renal mass with a history of diabetes, renal insufficiency and peripheral vascular disease.

24. Which statement is incorrect?

a. Advanced RCC is routinely treated with cytotoxic chemotherapy.
b. Cytokines such as high-dose IL-2 can be associated with high toxicity.
c. Patients with mRCC and poor prognosis derive little benefit from cytokine therapy.
d. A small proportion of patients with mRCC are able to achieve long-lasting responses to cytokines.

25. Key molecules in the hypoxia-inducible pathway that are potential prognostic molecular markers in RCC include:

a. p53.
b. Ki67.
c. CAIX.
d. PTEN.

175. What is the most frequent cause of penile fracture?

a. Masturbation.
b. Sexual intercourse.
c. Sports-related trauma.
d. Self-inflicted bending of the penis.

176. Post-obstructive diuresis should be managed by:

a. Replacement of all measurable urine.
b. Fluid replacement always given parenterally.
c. Replacement of all measurable urine plus 30 mL per hour.
d. Replacement of all measurable urine plus 1 litre every 12 hours.

170. Which statement with regards to segmental testicular infarction is correct?

a. It is usually caused by testicular torsion.
b. Patients need emergency scrotal surgery.
c. It is associated with raised testicular tumour incidence.
d. It appears as focal avascular area on colour Doppler sonography.

171. What is the procedure with the highest incidence of bladder perforation?

a. TVT.
b. Vaginal hysterectomy.
c. Abdominal hysterectomy.
d. Laparoscopic sacrocolpopexy.

172. What is the gold standard for the diagnosis and staging of renal injuries in haemodynamically stable patients?

a. Angiography.
b. Ultrasonography.
c. Magnetic resonance imaging.
d. CT scan with enhancement of intravenous contrast material.

173. What is the most accurate study to identify a bladder rupture?

a. Ultrasound.
b. Excretory urography.
c. Retrograde cystography.
d. Computed tomography.

174. A 32-year-old male has a left superior and inferior pubic ramus fracture and a fracture of the sacroiliac joint. His bladder is palpable. No blood from urethra is noted.
What is the next step?

a. IVP.
b. Urethrocystoscopy.
c. Urethral catheter placement.
d. Retrograde urethrocystography.

26. Which treatment may not be beneficial for fracture risk and bone metastases?

a. Bisphosphonates.
b. Lifestyle changes.
c. Erythropoietin (EPO).
d. Calcium plus vitamin D.

27. What is the typical histology of urachal cancers?

a. Sarcoma.
b. Adenocarcinoma.
c. Urothelial carcinoma.
d. Squamous cell carcinoma.

28. Known risk factors for bladder cancer do not include:

a. Aniline exposure.
b. Arsenic exposure.
c. Cigarette smoking.
d. Cadmium exposure.

29. A patient with a T1G3 tumour undergoes a TUR with no further intravesical instillations. Six months later urine cytology shows G3 malignant cells and random biopsies demonstrate the presence of carcinoma in situ in the absence of visual tumour.
The recommended treatment is:

a. Cystectomy.
b. Intravesical BCG.
c. Intravesical interferon.
d. Intravesical chemotherapy.

30. The definition of biochemical failure after radical prostatectomy is:

a. A rise of 2 ng/mL above the nadir.
b. A rise of 0.2ng/mL, which should be confirmed.
c. A rise of 0.5 ng/mL, which should be confirmed.
d. Any measurable PSA following radical prostatectomy.

31. A prognostic factor for a beneficial outcome of salvage radiotherapy following radical prostatectomy is:

a. PSA doubling time less than 10 months.
b. Start of radiotherapy when PSA < 1.5 ng/mL.
c. Margin positivity only in radical prostatectomy specimen.
d. Absence of Gleason grade 4 in radical prostatectomy specimen.

32. Transient elevation of testosterone may occur in LHRH agonist treatment:

a. Never.
b. At each re-injection.
c. Only after the first injection of agonist LHRH.
d. Consistently at the first injection and in 10% of the re-injections.

33. In addition to lifestyle modifications and the administration of vitamin D and calcium supplements, which of the following can increase bone mineral density in patients undergoing androgen deprivation therapy?

a. Radionuclides.
b. Selenium intake.
c. Dietary counselling.
d. Intravenous bisphosphonate therapy.

34. Which statement is correct concerning the indication for performing prostate biopsies?

a. A PSA cut-off level of 4 ng/mL is accepted as a universal PSA threshold.
b. A PSA cut-off level of 2.5 ng/mL is accepted as a universal PSA threshold.
c. A PSA cut-off level between 4 -10 ng/mL is accepted as a universal PSA threshold.
d. There is no real PSA threshold.

166. Which imaging technique is most useful for detecting suspected ureteral injuries after a trauma?

a. Diuresis renography.
b. Intravenous pyelography.
c. CT with contrast agent, obtained 20 minutes after injection of the contrast agent.
d. CT with contrast agent, obtained immediately after injection of the contrast agent.

167. Which method is used to perform a "one shot" intra-operative intravenous urogram (IVU) in a 50 kg woman with a grade V injury of the left kidney?

a. Inject a 100 mL bolus of intravenous contrast followed by a single film of the abdomen at 10 minutes.
b. Inject a 100 mL bolus of intravenous contrast followed by a single film of the abdomen at 20 minutes.
c. Inject a 50 mL bolus of intravenous contrast followed by a full series to evaluate the urinary tract, including the ureters.
d. Determine the patient's serum creatinine and adjust the dose accordingly to make sure she will not develop renal failure as a result of reaction to the contrast agent.

168. What is correct for bladder rupture associated with blunt abdominal trauma?

a. It should be treated surgically in most cases.
b. It coexists in 50% of cases with urethral disruption.
c. It is in 90% of cases associated with a pelvic fracture.
d. The mortality is dependent on non-urological comorbidity.

169. What is correct for testis rupture due to blunt trauma?

a. It usually involves both testes.
b. It can be diagnosed reliably by ultrasound.
c. The degree of haematoma reflects the extent of injury.
d. It can be managed conservatively in the majority of cases.

TRAUMA/EMERGENCY

161. Injury of the anterior urethra is not caused by:

a. Pelvic fracture.
b. Sexual intercourse.
c. Penetrating trauma.
d. Penile construction bands.

162. Concerning the severity scale of bladder injury, an intraperitoneal laceration >2 cm due to a blunt trauma, is a:

a. Grade 2 injury.
b. Grade 3 injury.
c. Grade 4 injury.
d. Grade 5 injury.

163. Concerning renal trauma, which statement is not correct?

a. Repeat imaging after grade 2 trauma is mandatory.
b. Renal injuries account for 1-5% of all abdominal trauma.
c. Arterial thrombosis in a single kidney is an indication for surgical management.
d. A patient with blunt trauma with microscopic haematuria and hypotension should have a radiologic evaluation.

164. Concerning the "Injury severity scale" for the kidney, single cortical laceration into the collecting system is:

a. Grade 2.
b. Grade 3.
c. Grade 4.
d. Grade 5.

165. What is correct about ureteral injuries during laparoscopy?

a. Most of them are recognised immediately.
b. Surgery for endometriosis greatly increases the risk.
c. Bipolar diathermy during tubal ligation eliminates the risk.
d. The total number of injuries has stabilised over the years.

35. Progression-free survival 10 years after salvage prostatectomy is:

a. Between 10% and 15%.
b. Between 20% and 40%.
c. Between 50% and 60%.
d. More than 60%

36. The LNCaP cell line represents:

a. Androgen-dependent breast cancer cell line.
b. Androgen-independent breast cancer cell line.
c. Androgen-dependent prostate cancer cell line.
d. Androgen-independent prostate cancer cell line.

37. After learning about the results of the PCPT trial control group PSA is considered a poor diagnostic test, because:

a. High PSA values do not correlate with large volume cancers.
b. PSA misses in proportion more high grade cancers at low levels.
c. No cut-off point with high sensitivity and specificity can be identified.
d. Its use leads to diagnosing more than 60% of the autopsy-detectable cancers.

38. What is the most significant preoperative risk factor associated with an increased frequency of positive lymph nodes in prostate cancer?

a. Biopsy Gleason score 7.
b. Clinical stage T2b disease.
c. PSA serum level 10 - 20 ng/mL.
d. 50% of biopsy cores involved with Gleason grade 4 cancer.

39. Which statement is correct?

a. Allelic losses of 17p have prognostic value in clear cell carcinoma.
b. The age at diagnosis is an important prognosticator in renal cell carcinoma.
c. Microvascular invasion is of prognostic significance in organ-confined renal cell carcinoma.
d. Grading, nuclear morphometry and DNA content are well established prognosticators in clinical decision-making for renal cell carcinoma.

40. Sunitinib is a:

a. HIF Inhibitor.
b. m Tor Inhibitor.
c. Anti VEGF Antibody.
d. Tyrosine Kinase Inhibitor.

41. Laparoscopic partial nephrectomy is a challenging technique because:

a. It generally requires retroperitoneal access.
b. It does not duplicate the surgical steps of open partial nephrectomy.
c. It has a longer operative time compared to open partial nephrectomy.
d. Tumour resection and parenchymal suturing must be completed within 30 minutes.

42. Partial nephrectomy is standard treatment for small renal masses because:

a. Many small renal masses can be benign.
b. Laparoscopic radical nephrectomy is too morbid.
c. Single and multi-centre published experience has proven its safety and efficacy.
d. Randomised trials have shown equivalent results compared to radical nephrectomy.

158. A couple has visited the outpatient clinic for primary infertility for 3 years. What is their chance of spontaneous conception in the following year? Approximately:

a. 5%.
b. 15%.
c. 25%.
d. 35%.

159. Regarding the surgical management of ischaemic priapism, which procedure is the "T-shunt technique" (Winter shunt)?

a. Deep dorsal vein shunt.
b. Open distal shunt between corpora cavernosa and glans.
c. Percutaneous distal shunt between corpora cavernosa and glans.
d. Open proximal shunt between corpora cavernosa and saphenous vein.

160. Following Peyronie's disease in young patients, the percentage of spontaneous resolution is about:

a. <1%.
b. 1-3%.
c. 3-13%.
d. 26-35%.

154. Ejaculation:

a. Is largely due to contraction of the seminal vesicles.
b. Cannot occur in the absence of a sensation of orgasm.
c. Is defined as the deposition of semen in the posterior urethra.
d. Is largely due to contraction of the perineal striated musculature and anal sphincter.

155. Which statement is correct regarding varicocele in adolescence?

a. Hormonal status should be checked.
b. Treatment is indicated if the ipsilateral testis is small.
c. Future spontaneous pregnancy rates are clearly reduced without treatment.
d. Scrotal approach for treatment is preferred to exclude testicular abnormalities.

156. A man is evaluated for infertility problems. He admits to the use of anabolic steroids. He is advised to stop taking these drugs. What other advice could be given to this man to improve his fertility status?

a. Folic acid.
b. Vitamin E.
c. Androgens.
d. Anti-oestrogens.

157. In the follow-up of older men who are on testosterone supplementation, which laboratory tests are advisable?

a. PSA, testosterone and SHBG.
b. Testosterone, PSA and haematocrit.
c. Testosterone, oestrogens, SHBG and PSA.
d. No routine laboratory tests are advisable.

43. Inactivation of the VHL gene and the hypoxia-inducible pathway is not relevant for:

a. The therapeutic mechanism of mTOR inhibition.
b. Upregulation of Matrix Metalloproteinases (MMP).
c. The mechanism of targeted antiangiogenetic therapies.
d. Growth factor receptor signalling pathways leading to cell proliferation.

44. According to the 2010 TNM classification for renal cell cancer:

a. T1b indicates a tumour between 4 and 7 cm.
b. T2b indicates organ confined tumour <7 cm.
c. T3a indicates invasion into the adrenal gland.
d. T3b tumour indicates invasion in the renal vein only.

45. What percentage of renal cell carcinoma tumours have clear cell histology?

a. 25%.
b. 50%.
c. 70%.
d. >80%.

46. A single dose of intravesical chemotherapy after TUR should be avoided in the following situation:

a. Patient hydration.
b. Bladder perforation.
c. Alkalinisation of the urine.
d. Bladder irrigation at the conclusion of the TUR.

47. What is the 5-year cancer-specific survival rate of M+ upper urinary tract urothelial cell carcinoma?

a. < 5%.
b. 10%.
c. 30%.
d. 50%.

48. What is the frequency of bladder urothelial cell carcinoma after treatment of a primary upper urinary tract urothelial cell carcinoma?

a. 5-10%.
b. 15-50%.
c. 60-75%.
d. 80-90%.

49. The most common symptom in patients with non-muscle invasive bladder cancer is:

a. Haematuria.
b. Weight loss.
c. Lower abdominal pain.
d. Dysuria and frequency.

50. Currently, the advice for a high risk non-muscle invasive bladder cancer (NMIBC) patient failing BCG, is treatment with:

a. Radical cystectomy.
b. Thermochemotherapy.
c. Photodynamic therapy (PDT).
d. Electromotive drug administration with a chemotherapeutic drug (EMDA).

51. Clinical studies comparing fluorescence-guided transurethral resection and conventional TUR using white light cystoscopy show that:

a. PDD is less effective than white light cystoscopy in detecting carcinoma in situ.
b. The number of tumours detected at a second-look TUR is reduced in patients following fluorescence-guided resection.
c. The specificity of fluorescence-guided cystoscopy is better than the specificity of standard white light cystoscopy.
d. Fluorescence-assisted TUR decreases recurrence-free survival of patients suffering from non-muscle invasive urothelial carcinoma.

149. Emission and ejaculation are under the control of:

a. Sympathetic nervous system.
b. Sympathetic and pudendal system.
c. Parasympathetic nervous system.
d. Parasympathetic and pudendal system.

150. Most of the penile blood supply comes from the:

a. Gluteal artery.
b. Obturator artery.
c. Internal pudendal artery.
d. Inferior epigastric artery.

151. If transrectal ultrasound reveals dilated seminal vesicles associated with a midline cyst in a man with obstructive azoospermia, which is the subsequent procedure?

a. Vasovasostomy.
b. Classic end-to-side vasoepididymostomy.
c. Transurethral resection of ejaculatory ducts.
d. End-to-side intussusception of both seminal vesicles.

152. Which parameter generally correlates with impaired spermatogenesis?

a. Low FSH.
b. Low FSH – Low LH.
c. Normal FSH – Elevated LH.
d. Elevated FSH.

153. Erectile dysfunction (ED) and coronary artery disease (CAD) are closely related. Which of the following is correct?

a. ED prevalence is related to the extent of CAD.
b. Multi-vessel (2 or 3 Vessel Disease) involvement becomes clinically evident at the same time of ED presence.
c. Almost one out of five men presenting ED as the first clinical manifestation may have asymptomatic CAD.
d. In one out of three of men with CAD, symptoms of ED have started before the symptoms of CAD (mean 39 months).

145. The predominant explanation(s) for the beneficial effects of daily PDE5 inhibitor use is (are):

a. Inhibition of the adrenergic system which enhances loss of vasoconstriction.
b. Improved blood flow leads to increased nitric oxide release and bioavailability.
c. Chronic PDE5 inhibitor activates eNOS, potentially reverses cavernous fibrosis, and enhances systemic endothelial function.
d. Smooth muscles become adapted to the elevated cGMP levels and therefore vasodilate more effectively, although tachyphylaxis may be a problem.

146. What is the most likely diagnosis in a man whose semen analysis shows azoospermia, low semen volume and negative fructose levels?

a. Kallmann's syndrome.
b. Postvasectomy status.
c. Klinefelter's syndrome.
d. Ejaculatory duct obstruction.

147. When a penile blood sample is drawn in case of ischaemic priapism, we find:

a. Metabolic alkalosis.
b. Hypoxia (reduced O2).
c. Hypocapnia (reduced CO2).
d. Hypokalaemia (reduced potassium).

148. What is not a symptom of a prolactin secreting pituitary tumour?

a. Infertility.
b. Erectile dysfunction.
c. Premature ejaculation.
d. Reduced sexual desire.

52. What percentage of patients with penile carcinoma have distant metastases at presentation?

a. 2%.
b. 6%.
c. 10%.
d. 20%.

53. What is the percentage of malignancy among pheochromocytomas?

a. 1-3%.
b. 4-8%.
c. 10-15%.
d. 30-40%.

54. Which statement is not correct regarding the enzyme lactate dehydrogenase?

a. It can be elevated in seminomas.
b. The level correlates with the tumour burden.
c. It is an important factor in testis cancer monitoring.
d. The subtype five is elevated in non-seminoma testicular cancer.

55. What is the most frequent histological type of testicular cancer in adults?

a. Teratoma.
b. Seminoma.
c. Yolk sack tumour.
d. Embryonal carcinoma.

56. At the time of orchidectomy for cancer the level of HCG is 187 U/L. Which histological type can we exclude based on this marker level?

a. Teratoma.
b. Seminoma.
c. Embryonal carcinoma.
d. None of them.

57. What is the half life time of alpha-fetoprotein (AFP)?

a. 1-2 days.
b. 5-7 days.
c. 14-16 days.
d. 30 days.

58. What is the most frequent genetic alteration in testicular cancer?

a. i12p.
b. 7q LOH.
c. 19p LOH.
d. 3p25-26 LOH.

59. CD 31 immunhistology helps to identify:

a. Vascular invasion.
b. Choriocarcinoma component.
c. Embryonal carcinoma component.
d. Testicular intraepithelial neoplasia.

60. Which statement is correct in a case-control study with prostate cancer death as endpoint?

a. A case is a subject who was diagnosed with prostate cancer and still alive.
b. A case is a subject who was diagnosed with prostate cancer and died from lung cancer.
c. A control is a subject who was diagnosed with prostate cancer before his matched case and died from prostate cancer.
d. A control is a subject without prostate cancer before the date of diagnosis of his matched case and still alive at death of this case.

ANDROLOGY/INFERTILITY

142. Which statement regarding penile anatomy is <u>not</u> correct?

a. The efferent innervation of the penis originates from the pudendal nerve.
b. Buck's fascia covers both corpora cavernosum and corpus spongiosum.
c. The superficial vein system may be connected to the deep dorsal vein network.
d. The efferent innervation of the penis derives from the first, second and third sacral roots.

143. The most appropriate first-line therapy for a patient with failure of emission after retroperitoneal lymph node dissection would be:

a. Ephedrine sulphate at a dose of 25 mg four times daily.
b. Micro-epididymal sperm aspiration and intracytoplasmic sperm injection.
c. A single dose ephedrine sulphate of 25 mg one hour before intercourse.
d. Sperm retrieval from a postejaculation urine sample and intrauterine insemination of his partner.

144. A positive post-coital test is present:

a. If there is a normozoospermia in the ejaculate.
b. If intercourse is observed spontaneously during ovulation.
c. If after intercourse motile sperms are demonstrable in the cervical mucus.
d. If after intercourse motile sperms are demonstrable in the posterior vagina.

141. The interpretation of a renal nuclear scan with DMSA can be affected by:

a. Hydronephrosis.
b. Vesicoureteral reflux.
c. Hydroureteronephrosis.
d. Upper urinary tract infection.

FUNCTIONAL/BPH/INCONTINENCE

61. Stress urinary incontinence:

a. Affects approximately 15% of women.
b. Occurs most frequently in middle-aged women.
c Occurs more frequently in women >60 years old.
d. Is usually combined with urge incontinence (mixed urinary incontinence).

62. Which statement about alpha1-blockers in elderly men with LUTS is correct?

a. Alpha 1-blockers have no relevant effect on serum PSA.
b. Alpha 1-blockers lead to a reduction of prostate volume by 30%.
c. Alpha 1-blockers' effect on LUTS is dependent on prostate volume.
d. Alpha 1-blockers reduce the risk of acute urinary retention by 20%.

63. Which statement regarding alpha-blockers and sexual function is incorrect?

a. Alpha-blockers cause abnormal ejaculation.
b. Alpha-blockers have a negative influence on libido.
c. Alpha-blockers can have a small beneficial effect on erectile function.
d. Tamsulosin and Silodosin are associated with a greater risk of abnormal ejaculation.

64. Autonomic dysreflexia:

a. May occur during anaesthesia.
b. May be complicated by hypotension.
c. Is characterised by hypertension and sweating.
d. Is characterised by hypertension and tachycardia.

65. The strongest indication for surgical treatment of LUTS due to bladder outflow obstruction is:

a. Nocturia.
b. Bladder diverticulum.
c. First episode of urinary retention.
d. Recurrent urinary tract infections.

66. Side effects of alpha blockers might include:

a. Dry mouth.
b. Vasoconstriction.
c. Floppy iris syndrome.
d. Risk of glaucoma deterioration.

67. The most common histological change, which was reported in the experimental studies on the use of Botulinumtoxin-A in animal prostates, was:

a. Increased cell apoptosis.
b. Decreased cell proliferation.
c. Reduction of androgen receptors.
d. Reduction of alpha-1-adrenergic receptors.

68. Which statement regarding the side-effects of medical therapy for LUTS in elderly men is correct?

a. Plant extracts are generally well tolerated.
b. Tamsulosin has a negative effect on erectile function but not on ejaculation.
c. The intraoperative floppy iris syndrome has recently been described in patients taking finasteride / dutasteride.
d. Combination therapy (alpha 1-blocker/5ARI) does not lead to a higher rate of side effects compared to the respective monotherapy.

136. Structures developing from Wolffian duct are:

a. Epididymis, seminal vesicles, and testes.
b. Seminal vesicles, epididymis, and prostate.
c. Vas deferens, prostate, and seminal vesicles.
d. Epididymis, vas deferens, and seminal vesicles.

137. Torsion of the testicle in the pubertal – adolescent period is:

a. An extra-epididymal process.
b. An intravaginal process (tunica vaginalis).
c. An extravaginal process (tunica vaginalis).
d. A combined intra- and extravaginal process (tunica vaginalis).

138. The most common testicular tumour in prepubertal children is a:

a. Yolk sac.
b. Teratoma.
c. Embryonal.
d. Teratocarcinoma.

139. The optimal age for surgical treatment of a child with an undescended testis is considered to be:

a. <6 months of age.
b. 10 - 18 months of age.
c. 24 - 36 months of age.
d. 60 – 72 months of age.

140. In a child with a complete renal duplication, the most common situation is the following:

a. There is no obstruction and no reflux.
b. The upper and lower poles both demonstrate reflux.
c. The upper pole demonstrates obstruction and the lower pole reflux.
d. The upper pole demonstrates reflux and the lower pole obstruction.

131. Undescended testicle occurs in what percentage of full-term male infants?

a. 1-3 %.
b. 5-7 %.
c. 8-10 %.
d. >10 %.

132. The advantage of endoscopic (sub and/or intra) ureteral injection is that:

a. It also improves voiding and bowel habits.
b. It is as efficient as surgical ureteral reimplantation (>92%).
c. It does not require a follow-up Voiding Cystourethrography (VCUG).
d. It has a higher success rate than 5 years of antibiotic prophylaxis.

133. An 11-year-old prepubertal boy without any history of recent disease presents with an acute scrotum.
What is the most likely diagnosis?

a. Orchitis.
b. Epididymitis.
c. Torsion of the testis.
d. Torsion of the epitestis (hydratid of Morgagni).

134. In congenital bilateral testicular absence the karyotype is:

a. 44XY.
b. 44XX.
c. 44XXY.
d. 44XO.

135. Anti-Müllerian hormone:

a. Is produced by Leydig cells.
b. Stimulates testicular descent.
c. Causes testicular development.
d. Induces Wolffian duct differentiation.

69. In patients with bladder outlet obstruction, bladder urothelium:

a. Increases its permeability to sodium ions.
b. Decreases its permeability to sodium ions.
c. Decreases its permeability to all urinary ions.
d. Is not involved in any pathological mechanism.

70. The advantages of holmium laser prostatectomy (HoLEP) over open prostatectomy include:

a. Low complication rate.
b. Surgical wound is avoided.
c. Short hospital stay and short catheterisation time.
d. All of the above.

71. Which statement regarding the efficacy of plant extracts is correct?

a. Plant extracts reduce the prostate volume by 20-25%.
b. A positive effect on symptoms has been documented for some extracts.
c. Plant extracts have a profound positive impact on bladder outflow obstruction.
d. Plant extracts reduce the risk of acute urinary retention and the need for surgery by 25%.

72. Which extended release drug is best at reducing the median number of micturitions?

a. Trospium.
b. Tolterodin.
c. Propiverine.
d. Oxybutinin.

73. When considering solfenacine as frontline therapy for overactive bladder treatment, it must be known, comparing it to other anticholinergic drugs, that it is:

a. Inferior and causes more side effects.
b. Non-inferior to tolterodine extended release.
c. Less effective, but has a lower adverse event rate.
d. More effective, but has a higher adverse event rate.

74. Among the different formulations and dosages of oxybutinin, which has the lowest adverse events?

a. Transdermal formulation.
b. Extended release formulation.
c. Immediate release 2.5 mg tid.
d. Immediate release 2.5 mg as needed.

75. Which drug is <u>not</u> available as immediate or extended release formulation for overactive bladder?

a. Urispas.
b. Trospium.
c. Tolterodin.
d. Oxybutinin.

76. What is the advised treatment in a 60-year-old man with lower urinary tract symptoms due to BPH and IPSS ≤ 7 without nocturnal polyuria?

a. TURP.
b. 5-α Reductase Inhibitor + α-1 blocker.
c. Desmopressin with or without Education+Lifestyle Advice.
d. Watchful waiting with or without Education+Lifestyle Advice.

77. Which statement is correct concerning uroflowmetry?

a. It is an invasive measurement.
b. 50 mL voided urine is enough for exact interpretation.
c. Decreased maximal flow rate indicates lower urinary obstruction.
d. Normal maximal flow rate does not exclude lower urinary obstruction.

127. A ten-year-old girl with a normal voiding pattern has life-long continuous urinary incontinence. An ultrasound shows a normal right kidney, no left kidney is identified.
The test most likely to prove diagnostic is:

a. IVP.
b. DMSA scan.
c. Urodynamics.
d. Cystoscopy and retrograde pyelography.

128. A five-year-old girl has persistent daytime incontinence and is wet every night. Physical examination reveals a low, short gluteal cleft with a flattened buttock. Her urinalysis is negative and a renal sonogram is normal. The next step is:

a. Spinal MRI.
b. Spinal ultrasound.
c. Urodynamic study.
d. Timed voiding and voiding diary.

129. The diagnostic work-up in an eleven-year-old boy revealed a symptomatic left-sided uretero-pelvic junction obstruction (UPJO) with vesico-ureteric reflux grade 3 on the same side.
The most appropriate surgical treatment of his UPJO is:

a. Foley Y-V pyeloplasty.
b. Ureteroscopic endopyelotomy.
c. Anderson-Hynes dismembered pyeloplasty.
d. Culp and de Weerd`s spiral pelvic flap pyeloplasty.

130. A newborn boy has penoscrotal hypospadias and bilateral cryptorchidism. Karyotype reveals a point mutation on chromosome 11p13. At the age of one he develops renal failure. Renal biopsy reveals diffuse mesangial sclerosis. He is started on dialysis. At the age of two, an ultrasound reveals a 3 cm solid mass in the lower pole of the right kidney. The next step is:

a. Open renal biopsy.
b. Bilateral nephrectomy.
c. Right radical nephrectomy.
d. Repeat ultrasound in 3 months.

PAEDIATRICS/CONGENITAL

123. The anti-Müllerian hormone:

a. Is a sex steroid hormone.
b. Leads to female sexual differentiation.
c. Inhibits the production of the HY-antigen.
d. Is produced by Sertoli-cells in the embryonic testicle.

124. What is the embryological anomaly that leads to the formation of a retrocaval ureter?

a. Situs inversus.
b. Abnormal ureteric bud formation.
c. Persistance of the subcardinal vein.
d. Persistance of the supracardinal vein.

125. In duplex ureters, vesico-ureteric reflux (commonly) occurs:

a. Very rarely.
b. In both ureters.
c. In the ureter of the lower moiety.
d. In the ureter of the upper moiety.

126. A three-year-old girl has been followed conservatively for a right-sided congenital hydronephrosis with normal differential function.
The ultrasound study last week shows an increase of the intrarenal AP diameter from 30 to 35 mm.
The next step is:

a. Nephrostomy.
b. MAG3 renography.
c. Perform pyeloplasty.
d. Prophylactic antibiotics (continuation).

78. An abnormal knee reflex suggest effects at the level:

a. S I-II.
b. L II-III.
c. S IV-V.
d. Th X-XI.

79. In diabetic patients, what is the most frequent change?

a. Peripheral neuropathy.
b. Lower motoneurone lesion.
c. Infra-pontine upper motoneurone lesion.
d. Supra-pontine upper motoneurone lesion.

80. What is correct regarding overactive bladder syndrome?

a. There is underlying neurological disease.
b. There is frequent micturition during the day and the night.
c. There is low bladder compliance during filling cystometry.
d. There is urinary urgency, with or without urge incontinence.

81. What are typical changes seen during urodynamic studies in a case of infrapontine upper motoneurone lesion?

a. Detrusor areflexivity, urinary retention, stress incontinence.
b. Detrusor hypocontractility, urinary retention, stress incontinence.
c. Increased detrusor pressure, involuntary detrusor contractions, functional lower urinary tract obstruction.
d. Increased detrusor pressure, involuntary detrusor contractions, no lower urinary tract obstruction, sphincter incompetence.

82. Which statement is not correct regarding desmopressin treatment for nocturia due to nocturnal polyuria in adults?

a. The risk of hyponatremia increases with age.
b. Serum sodium concentration does not need to be monitored regularly.
c. The risk of hyponatremia increases with lower serum sodium concentration at start of treatment.
d. The risk of hyponatremia increases with higher basal 24-hour urine volume per bodyweight.

83. Which statement is correct when considering the genetic and familial factors about BPH?

a. There is no relation between BPH and genetic/familial factors.
b. Segregation analysis showed that the results were most consistent with a single gene defect.
c. Segregation analysis showed that the results were most consistent with an autosomal recessive inheritance pattern.
d. Segregation analysis showed that the results were most consistent with an autosomal dominant inheritance pattern.

84. In autonomic dysreflexia:

a. Bradycardia and flushing are caused by vasoconstriction.
b. Hypertension is rarely life-threatening, but tachycardia is.
c. The uninhibited thoracic spinal cord drives the distal sympathetic nervous system.
d. The uninhibited thoracic spinal cord drives the distal parasympathetic nervous system.

85. Symptom reduction by finasteride depends on initial prostate size and may not be more efficacious than placebo in patients with prostates smaller than:

a. 40mL.
b. 60mL.
c. 80mL.
d. 100mL.

121. What is the most common indication for open surgery in stone disease?

a. Staghorn calculus.
b. A paediatric patient.
c. Non-functioning part of kidney.
d. Patients that are allergic to iodine-containing contrast.

122. What is the advised treatment in a case of sepsis associated with an obstructing stone?

a. URS with antibiotic cover.
b. ESWL with antibiotic cover.
c. PCNL with antibiotic cover.
d. Drainage of the system and a delayed approach.

116. In the treatment of urethritis, which is correct?

a. Fluoroquinolone resistant N. gonorrhoeae is decreasing.
b. Ceftriaxone as a single dose is a suitable first-line treatment for gonorrhoeal urethritis.
c. If gonorrhoea is suspected fluoroquinolones are a suitable treatment for adolescents (less than 18 years old).
d. If gonorrhoea is suspected and the patient's partner is pregnant then she should be treated with fluoroquinolone.

117. What is a recognised pathogen of bacterial prostatitis?

a. U. Urealyticum.
b. Corynebacterium sp.
c. Mycoplasma hominis.
d. Klebsiella pneumoniae.

118. Cystine stones are difficult to treat with ESWL because:

a. They are hard.
b. They are radiolucent.
c. Of their internal structure.
d. They are round and multiple.

119. ESWL is <u>not</u> first treatment option for:

a. Stone >3 cm.
b. All lower pole stones.
c. A stone in upper ureter.
d. Stones with Hounsfield units <500.

120. Which factor is <u>not</u> important for a successful outcome of ESWL?

a. Patient habitus.
b. Patient ethnicity.
c. Rate of shockwaves.
d. Hounsfield units of the stone.

86. Regarding male sling procedures, which statement is correct?

a. No tension needs to be applied to male slings.
b. The best method for intra-operatively setting the degree of sling tension is the cough test.
c. As opposed to retropubic slings, transobturator slings carry a lower risk of complications.
d. Randomized trials have clearly demonstrated that cure rates after sling procedures are similar to those obtained after artificial urinary sphincter implantation.

87. In comparison with other formulations of oxybutynin, the transdermal route is:

a. Less effective, but fewer side effects.
b. As effective as oral agents, but high rates of adverse side effects.
c. More effective at reducing incontinence episodes, but have a lot of local adverse reactions.
d. More effective in reducing number of incontinent episodes, but cause more constipation and dry mouth.

88. Among the most bothersome symptoms in clinical BPH are:

a. Urgency and frequency.
b. Hesitancy and poor stream.
c. Post micturition dribbling.
d. Stress and urge incontinence.

89. Dementia is a poorly understood disease.
Which voiding dysfunction is usually associated with it?

a. Urgency.
b. Hesitancy.
c. Incontinence.
d. Post-micturition dribbling.

90. Resiniferatoxin is an analogue of capsaicin.
It:

a. Is more toxic than capsaicin.
b. Has less desensitising properties than capsaicin.
c. Causes less pain during and after intravesical administration.
d. Initially causes desensitisation and then excitation of the nerve cell.

91. Provocative tests such as the "ice water test" or the betanechol test can help to distinguish:

a. Lower motorneurone lesion from peripheral neuropathy.
b. Functional urinary tract obstruction from organic obstruction.
c. Detrusor denervation from muscular integrity in case of acontractile detrusor.
d. Infrapontine upper motorneurone lesion from suprapontine upper motorneurone lesion.

92. TUIP could be considered the treatment of choice if the prostate volume is:

a. ≤ 30 mL.
b. 50 mL.
c. 65 mL.
d. 80 mL.

112. A 75-year old male presented with painful micturition and subfebrile temperatures. Urinalysis shows pyuria and urine culture is negative. This disease pattern most likely represents:

a. Prostate cancer.
b. Prostate tuberculosis.
c. Chlamydial prostatitis.
d. Gonococcal prostatitis.

113. What is not an important factor for successful stone disintegration after ESWL?

a. Kidney function.
b. The rate of shockwaves.
c. Abdominal compression.
d. Coupling of the ESWL device with skin.

114. What is not usually a cause of urethritis?

a. Mycoplasma hominis.
b. Trichomonas vaginalis.
c. Chlamydia trachomatis.
d. Mycoplasma genitalium.

115. Which test result is most supportive of the diagnosis of urethritis?

a. A negative leukocyte esterase test.
b. The presence of gram negative intracellular diplococci.
c. A gram stain of a urethral smear shows 3 leukocytes per high power field (x 1000).
d. A gram stain of the first voiding urine specimen shows 7 leukocytes per high power field (x400).

107. Which antibiotic is likely to be effective in a case of chronic prostatitis caused by Gram positive bacteria?

a. Cephalexin.
b. Erythromycin.
c. Nitrofurantoin.
d. Amoxicillin and clavulanic acid.

108. Oxalate stone formation can be a result of:

a. Chronic UTI.
b. Alcohol abuse.
c. Hyperuricemia.
d. Extensive intestinal resection.

109. What is the primary mechanism of action of citrate in preventing urinary stones?

a. Complexing oxalate.
b. Complexing calcium.
c. Reducing the excretion of oxalate.
d. Reducing the excretion of calcium.

110. Supine approach for the percutaneous treatment of stones in the urinary tract:

a. Is indicated in horseshoe kidneys.
b. Results in a higher stone-free rate.
c. Allows a better drainage of stone fragments.
d. Is especially helpful in caliceal diverticular stones.

111. The ideal approach for the insertion of a nephrostomy tube should be through:

a. The papilla into the calyx.
b. The caliceal infundibulum.
c. The uretero-pelvic junction into the pelvis.
d. The renal parenchyma into the renal pelvis.

LITHIASIS/INFECTIONS

93. A 43-year-old man complains of recurrent urinary tract infections for 2 years. The result of the 4-glass test reveals 103 cfu/mL Escherichia coli in the expressed prostatic secretion, susceptible to all tested antimicrobials.
What is the best antibiotic to prescribe?

a. Amoxycillin.
b. Doxycycline.
c. Ceftriaxone.
d. Ciprofloxacin.

94. The vector of urogenital schistosomiasis is a:

a. Cestode.
b. Trematode.
c. Protozoar (flagellated).
d. Anaerobic bacteria type gram+.

95. Chlamydia trachomatis is a:

a. Mycoplasma.
b. Gram positive bacterium.
c. Gram negative bacterium.
d. Gram negative microorganism.

96. The main force that inhibits Calcium oxalate aggregation is the repulsive electrostatic surface change known as:

a. Alpha potential.
b. Beta potential.
c. Gamma potential.
d. Zeta potential.

97. An absolute contraindication for ESWL is:

a. Pregnancy.
b. Hypertension.
c. Coagulopathy.
d. Myocardial infarction.

98. Choose the right order according to resistance to ESWL (most resistant stone first).

a. Whewellite, struvite, Weddelite, uric acid.
b. Weddelite, Whewellite, uric acid, struvite.
c. Weddelite, struvite, Whewellite, uric acid.
d. Whewellite, uric acid, struvite, Weddelite.

99. When a patient presents with fever, flank pain and renal obstruction from a small calculus impacted in the pelvic ureter, the situation is best managed by:

a. Immediate ureteroscopic extraction of the stone.
b. Retrograde stenting of the ureter and administering antibiotics.
c. Administering antibiotics and delaying ureteroscopy until the urine is sterile.
d. Immediate percutaneous nephrostomy, antibiotics and ureteroscopic stone removal after all signs of infection have disappeared.

100. During a percutaneous nephrolithotripsy serious bleeding is encountered. What is the appropriate immediate action?

a. Nephrectomy.
b. Blood transfusion and wait.
c. Arteriography with embolisation.
d. Clamping the nephrostomy tube.

101. When hypercalciuria is found in a case of urolithiasis:

a. Calcium restriction is mandatory.
b. Thiazides will reduce hypercalciuria.
c. Sodium excretion is not related to calcium excretion.
d. Allopurinol and a reduced oxalate intake must be prescribed.

102. The medical treatment for idiopathic hypercalciuria is:

a. Citrate.
b. Allopurinol.
c. Thiazide diuretics.
d. Cellulose phosphate.

103. In cystinuria the inherited defect in renal tubular reabsorption affects:

a. Cystine alone.
b. Cystine and ornithine.
c. Cystine, lysine and arginine.
d. Cystine, ornithine, lysine and arginine.

104. What is often found in alkaline urine?

a. Cystine stones.
b. Uric acid stones.
c. Calcium oxalate stones.
d. Magnesium-ammonia-phosphate stones.

105. Urinary tract stones originate from the:

a. Ureter.
b. Renal pelvis.
c. Renal calices.
d. Collecting ducts of the kidney.

106. Which drug can be useful in post-menopausal recurrent urinary tract infections?

a. Oestriol.
b. Tamoxifen.
c. Testosterone.
d. Progesterone.

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CORRECT ANSWERS

101. A	126. D	151. B	176. B
102. A	127. C	152. D	177. C
103. D	128. C	153. C	178. D
104. C	129. D	154. B	179. A
105. C	130. D	155. C	180. A
106. D	131. D	156. B	181. D
107. A	132. D	157. C	182. A
108. A	133. D	158. B	183. D
109. A	134. B	159. A	184. A
110. C	135. B	160. B	185. D
111. B	136. A	161. C	186. D
112. C	137. B	162. C	187. B
113. A	138. D	163. D	188. A
114. C	139. D	164. C	189. D
115. D	140. A	165. C	190. D
116. B	141. C	166. A	191. C
117. A	142. D	167. B	192. C
118. B	143. B	168. B	193. C
119. B	144. C	169. A	194. B
120. B	145. C	170. A	195. C
121. D	146. D	171. A	196. B
122. A	147. C	172. D	
123. A	148. C	173. C	
124. B	149. A	174. C	
125. D	150. C	175. C	

CORRECT ANSWERS

1. C	26. B	51. B	76. A
2. D	27. C	52. C	77. B
3. B	28. C	53. A	78. D
4. D	29. A	54. C	79. C
5. B	30. B	55. D	80. B
6. B	31. D	56. A	81. C
7. B	32. A	57. A	82. C
8. ~~B~~ D	33. A	58. A	83. D
9. ~~D~~ B	34. B	59. A	84. C
10. ~~B~~ D	35. A	60. C	85. C
11. C	36. A	61. D	86. B
12. B	37. C	62. B	87. B
13. B	38. B	63. D	88. A
14. C	39. D	64. A	89. C
15. B	40. B	65. B	90. D
16. B	41. A	66. B	91. C
17. C	42. C	67. B	92. C
18. A	43. D	68. C	93. D
19. D	44. D	69. A	94. D
20. D	45. D	70. B	95. A
21. A	46. D	71. D	96. D
22. C	47. D	72. B	97. A
23. C	48. C	73. B	98. D
24. D	49. B	74. B	99. C
25. A	50. D	75. B	100. D

INTRODUCTION

This publication contains the MCQs of the In-Service Assessments organised by the EBU Examination Committee in 2017 and 2018.

Participation in the EBU In-Service Assessment is open to all residents and urologists. It is meant to provide the participants information regarding their present state of knowledge. Especially for those still in training it may serve as a continuous monitoring system. As they progress in their training, their results should improve over the years. It also provides insight in areas which need additional study and reading.

The content of the assessment covers both clinical and basic sciences. The contents of the MCQs do not only reflect current management of specific pathologies, but focus on issues of basic science as well. The purpose is to stimulate participants to study clinical urology and to acquire some insight in the basic research that will form the basis of urological practice in the future.

Many of the MCQs are rather specific: they have been included in the EBU In-Service Assessment but are in general not suitable for the official EBU Examination in Urology (FEBU). The assessment and the examination can therefore not be compared. Questions included in the EBU Examination in Urology are more general in nature and test knowledge and skills which all European urologists should have.

Please be aware that if you are reading a booklet that is not current, there may be answers that were correct when the questions were written. Medical knowledge may have changed and some of the answers may no longer be accurate.

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193. The risk for erectile dysfunction after a traumatic posterior urethral rupture associated with pelvic fracture is:

a. Less than 10%.
b. About 25%.
c. About 50%.
d. Over 75%.

194. 3 years ago, a 50-year-old woman underwent abdominal hystero- and bilateral salpingo-oophorectomy, followed by pelvic radiotherapy for carcinoma of the cervix. 3 months ago she presented with a right-sided hydronephrosis and a double-J ureteral stent was placed. Today she presents in the emergency room with anaemia, frank hematuria and is haemodynamic instable. What is the most likely diagnosis?

a. Radiocystitis.
b. Uretero-iliacal fistula.
c. Vesico-vaginal fistula.
d. Bladder invasion of cervical cancer recurrence.

195. The imaging tool of choice in evaluation and classification of a blunt renal trauma is:

a. MR urography.
b. Ultrasonography.
c. CT scan with contrast.
d. Renographic isotope study.

196. What grade of injury is a renal cortical laceration of >1 cm without urinary extravasation according to the American Association of the surgery of Trauma (AAST)?

a. Grade 2.
b. Grade 3.
c. Grade 4.
d. Grade 5.

ANDROLOGY/INFERTILITY

1. Dihydrotestosterone is produced from:

a. PSA.
b. Luteinising hormone (LH).
c. Dehydroepiandrosterone (DHEA).
d. Follicle-stimulating hormone (FSH).

2. Diabetes-induced erectile dysfunction may benefit from chronic vardenafil therapy through effect on:

a. Down regulation of Caveolin receptors.
b. Signal transduction upregulation of suppressin-3.
c. Increase in vasoactive intestinal polypeptide expression.
d. The endothelial NOS:Caveolin-1 ratio (eNOS/Caveolin-1).

3. What is NOT a mechanism by which diabetes can result in erectile dysfunction?

a. Atherosclerosis.
b. Ischaemic priapism.
c. Peripheral neuropathy.
d. Endothelial dysfunction.

4. The most important gene for male genital development is:

a. amh.
b. azf.
c. cftr.
d. sry.

5. Which is a secondary form of hypogonadism?

a. Klinefelter syndrome.
b. Kallmann syndrome.
c. Adrenal insufficiency.
d. Prolactinoma.

6. Which is the correct order of the spermatogenesis process?
   1. Spermatozoa
   2. Spermatids
   3. Primary spermatocyte
   4. Spermatogonium
   5. Secondary spermatocyte

   a. 3 – 5 – 4 – 2 – 1.
   b. 4 – 3 – 5 – 2 – 1.
   c. 4 – 2 – 3 – 5 – 1.
   d. 3 – 5 – 2 – 4 – 1.

7. What diagnostic measure is needed to confirm a diagnosis of azoospermia?

   a. At least 1 centrifuged semen specimen.
   b. At least 2 centrifuged semen specimens.
   c. Kariotype analysis.
   d. Spermiogram is usually enough.

8. What term is used to denote a state in which semen analysis shows motile spermatozoa to be lower than 32%?

   a. Cryptozoospermia.
   b. Oligozoospermia.
   c. Tratozoospermia.
   d. Asthenozoozspermia.

9. How many layers comprise the tunica albuginea of the penile corpora cavernosa?

   a. 1.
   b. 2.
   c. 3.
   d. 4.

TRAUMA/EMERGENCY

188. In traumatic rupture of the testicle, resection of devitalized testicular tissue and suture repair of the tunica albuginea is indicated:

   a. Always.
   b. In case of haematocele.
   c. In case of infertility to prevent generation of spermatic autoantibodies.
   d. Only in cases of an atrophic or absent contralateral testicle.

189. Which treatment is recommended for penile fracture?

   a. Conservative management.
   b. Haematoma drainage and indwelling catheter.
   c. Delayed surgical intervention after antibiotic treatment.
   d. Early surgical intervention with closure of the tunica albuginea.

190. What is the gold standard diagnostic method for the radiographic assessment of stable patients with renal trauma?

   a. Intravenous urogram.
   b. Ultrasonography.
   c. Magnetic resonance imaging.
   d. Computerised tomography.

191. Which statement is true regarding blunt bladder rupture injuries?

   a. They co-exist with urethral disruption in ± 50% of cases.
   b. They are present in ±90% of patients with pelvic fractures.
   c. High mortality is primarily related to non-urological comorbidities.
   d. Extraperitoneal rupture is always amenable to non-operative treatment.

192. When a bladder rupture is treated surgically, the preferred method is:

   a. A single-layer vesicorraphy with absorbable sutures.
   b. A single-layer vesicorraphy with non-absorbable sutures.
   c. A two-layer vesicorraphy with absorbable sutures.
   d. A two-layer vesicorraphy with non-absorbable sutures.

183. Following renal transplantation, the most important factor which causes renal artery stenosis is:

a. Angulation of the artery.
b. Immunosuppressive treatment.
c. Small diameter of the renal artery.
d. Arterial anastomosis not perfectly carried out.

184. Which statement about parathyroid hormone is correct?

a. It enhances tubular calcium reabsorption.
b. It decreases production of 1.25 dihydroxy-vitamin D.
c. It increases tubular reabsorption of inorganic phosphates.
d. It enhances hydrogen ion secretion in the proximal tubule.

185. Which drug may cause acute renal failure?

a. Quinolones.
b. Desmopressin.
c. Opiate analgesics.
d. Non-steroidal anti-inflammatory drugs.

186. Which hormone is most important in urine production at night?

a. Aldosterone.
b. Corticosteroids.
c. Renin-angiotensin system.
d. Vasopressin.

187. Oliguria is likely to be caused by pre-renal (impaired perfusion) failure rather than by intrarenal (renal parenchymal) failure, if:

a. The urine contains no cells or casts.
b. The urinary sodium is less than 10mmol/l.
c. The urinary osmolality is less than 350 mOsm/l.
d. The child has hypertension, raised central pressure and good peripheral perfusion.

10. Which area of the central nervous system is responsible for activating an erection?

a. Cerebral cortex.
b. Nucleus paragigantocellularis.
c. Preoptic medial area.
d. Hypothalamic paraventricular nucleus.

11. Which pharmaceutical has the longest half-life?

a. Avanafil.
b. Vardenafil.
c. Tadalafil.
d. Sildenafil.

12. Which is the most common cause of male infertility?

a. Varicocele.
b. Testicular dysgenesis.
c. Urogenital infections.
d. Obstruction of the seminal path.

13. Which is advised for monitoring patients who are on Testosterone therapy for male hypogonadism?

a. Perform a DEXA scan every year.
b. Measure Hematocrit, Testosterone and PSA at 3, 6 and 12 months and thereafter annually.
c. Measure PSA, SHBG, LH and Testosterone every 6 months.
d. Measure PSA and Testosterone at 3 and 6 months and thereafter annually, and perform a DEXA scan after 1 year.

14. What is the proportion of male-infertility-associated factors in voluntarily childless couples?

a. 5-10% of the cases.
b. 20-30% of the cases.
c. 40-50% of the cases.
d. 60-70% of the cases.

15. What is the prevalence of varicocele in the general adult population?

a. 6%.
b. 12%.
c. 18%.
d. 24%.

TRANSPLANTATION/NEPHROLOGY

179. What is commonest cause of microscopic haematuria in a man below 40 years?

a. IgA nephropathy.
b. IgM nephropathy.
c. Alport syndrome.
d. Goodpasture syndrome.

180. What electrolyte abnormalities occur with the use of stomach for urinary diversion?

a. Hypochloremic metabolic alkalosis.
b. Hyperchloremic metabolic acidosis.
c. Hyperchloremic metabolic alkalosis.
d. Hyperchloremic, hypernatremic metabolic acidosis.

181. Which statement is correct concerning the use of ureteric stents in kidney transplantation?

a. They are associated with higher risk of bleeding.
b. Stents should stay for at least a month after transplantation.
c. It is not necessary when performing a uretero-ureteral anastomosis.
d. There is clear evidence recommending its use in ureteral reimplantation.

182. The use of a double-J stent in ureteral reimplantation in transplantation:

a. Is associated with a higher risk of infections.
b. Does not change the incidence of haematuria.
c. Has no proven benefit.
d. Is associated with a higher risk of late stenosis.

177. Absolute contraindications for laparoscopic surgery include all of the following, EXCEPT:

a. Haemodynamic instability.
b. Uncorrectable coagulopathy.
c. Prior abdominal or pelvic surgery.
d. Significant abdominal wall infection.

178. What is the recommended length of pharmacological thromboembolic prophylaxis after surgery?

a. Time spent in hospital.
b. One week.
c. 15 days.
d. One month.

FUNCTIONAL/BPH/INCONTINENCE

16. What is a major contraindication for the implantation of an artificial urinary sphincter for post radical prostatectomy urinary incontinence?

a. Previous radiation therapy.
b. Significant detrusor overactivity.
c. Previously treated anastomotic stricture.
d. Recurrent elevated prostate-specific antigen.

17. Which result suggests a diagnosis of bladder outflow obstruction most?

a. Qmax 6ml/s, voided volume 50ml, post-micturition residual 150ml.
b. Qmax 12ml/s, voided volume 140ml, post-micturition residual 130ml.
c. Qmax 12ml/s, voided volume 340ml, post-micturition residual 95ml.
d. Qmax 18ml/s, voided volume 150ml, post-micturition residual 200ml.

18. In normal male patients undergoing uroflowmetry, which parameter is independent of the voided volume (Vcomp)?

a. Qmax/√Vcomp.
b. Qave/√Qmax.
c. Qmax/Vcomp.
d. Vcomp/√T100.

19. Bladder wall thickness increases:
Option 1: With age.
Option 2: In patients with bladder outlet obstruction.
Option 3: After TURP.

a. All 3 options are correct.
b. Only option 2 is correct.
c. Only option 1 is correct.
d. Options 1 and 2 are both correct.

20. Bladder wall mechanical stretch stress alters the expression of several growth factors. In particular it decreases the expression of which of the following?

a. bFGF.
b. EGF.
c. HB-EGF.
d. TGF.

21. Bladder Voiding Efficiency is defined as:

a. Voided volume: pre-void bladder volume x 100%.
b. Voided volume: cystometric bladder capacity x 100%.
c. (Voided volume + residual urine): total bladder capacity x 100%.
d. (Voided volume + residual urine): cystometric bladder capacity x 100%.

22. The MTOPS study and the CombAT have evaluated the combination of:

a. α-blockers and desmopressin.
b. α-blockers and antimuscarinics.
c. 5α-reductase inhibitors and α-blockers.
d. 5α-reductase inhibitors and antimuscarinics.

23. The most appropriate procedure for the correction of genuine Stress Urinary Incontinence (SIU) due to bladder neck hypermobility is:

a. Colposuspension.
b. Sling procedure.
c. Mid-urethral tape.
d. Urethral bulking agents.

24. High doses of capsaicin and resiniferatoxin:

a. Have no effect on the A6-fibres.
b. Cause cell death of the C-fibres.
c. Cause activation of the A6-fibres, leading to detrusor areflexia.
d. Cause depletion of the afferent nerve cell's supply of substance P and neurokinin A.

173. According to the surgical description of the technique of bladder psoas hitch, the bladder will be anchored to:

a. The psoas muscle using 2 stitches at least 5 mm in depth.
b. The psoas muscle laterally to distal part of the external iliac artery, using reabsorbable stitches.
c. The psoas minor tendon at least 3 cm above the common iliac artery, using reabsorbable stitches.
d. The tendon of the psoas muscle laterally to the bifurcation of iliac vessels using non-reabsorbable stitches.

174. As far as the technique of urinary diversion according to Bricker is concerned, what is the length of small bowel that is used to create the diversion and how long is the distance between distal portion of bowel loop and ileo-caecal valve?

a. The measurement is tailored to the diameter of the ileum.
b. The distance and the length are correlated with body mass index of the patient.
c. The loop of ileum is 12-15 cm long and it is taken about 15 cm proximally to the ileo-caecal.
d. The loop of ileum is 20-25 cm long and it is taken about 5 cm proximally to the ileo-caecal valve.

175. The hydrodistension of the bladder during cystoscopy in bladder pain syndrome should be performed with a pressure in the bladder of:

a. 2-10 cm H_2O.
b. 0-30 cm H_2O.
c. 80-100 cm H_2O.
d. 130-140 cm H_2O.

176. In Clavien-Dindo classification a pulmonary embolism post-operatively, is complication class:

a. 1.
b. 2.
c. 3.
d. 4.

169. When gaining open access to the kidney, subcostal and transcostal approaches are options. Weakness, relaxation or partial paralysis of the flank muscles is a known complication with this approach, caused by damage to which nerve?

a. Subcostal nerve.
b. Ilioinguinal nerve.
c. Genitofemoral nerve.
d. Iliohypogastric nerve.

170. While performing a robot-assisted laparoscopic prostatectomy due to prostate cancer, a 10x7 mm defect in the anterior part of the rectum is noticed. What is the next step?

a. Primary repair with meticulous stitching.
b. Conversion to open surgery is mandatory.
c. Make a colostomy and leave the defect for a secondary closure.
d. Prolonged catheter drainage and antibiotics for at least one month is mandatory.

171. Which vessels will be clamped during a right radical nephrectomy for a level II inferior vena cava (IVC) tumour thrombus (TT) prior to performing the cavotomy?

a. Left renal vein, right renal artery, IVC above and below the TT.
b. Left renal vein, left renal artery, right renal artery, IVC above and below the TT.
c. Suprahepatic veins, left renal vein, right renal artery, IVC above and below the TT.
d. Hepatic artery and vein, left renal vein, right renal artery, IVC above and below the TT.

172. Select the correct surgical step performed during the Pringle's manoeuvre:

a. The liver is mobilised medially.
b. The small bowel is rotated.
c. The duodenum is mobilised medially.
d. The hepatic artery and portal vein are clamped/compressed.

25. Following a CVA a fixed deficit may become apparent. Which dysfunctional symptom is usually associated with this?

a. Urgency.
b. Hesitancy.
c. Frequency.
d. Post-micturition dribbling.

26. During urodynamic studies which parameter is not directly measured but calculated?

a. Urethral pressure.
b. Detrusor pressure.
c. Intravesical pressure.
d. Intra-abdominal pressure.

27. Which are the key baseline parameters allowing a stratification of BPH patients according to the risk of progression?
1. Serum PSA.
2. Prostate size
3. Serum creatinine.
4. Age and symptom severity.

a. Only 1 and 2.
b. All except 1.
c. All except 3.
d. All.

28. What is the preferred method for diagnosing a ureteropelvic junction obstruction?

a. Ultrasonography and excretory urography.
b. Ultrasonography and CT.
c. Diuretic renography and excretory urography.
d. Retrograde pyelography and excretory urography.

29. Which statement is correct regarding pelvic organ prolapse after incontinence surgery?

a. The rate of cystocele is similar after colposuspension and with TVT.
b. The rate of cervical prolapse is similar after colposuspension and with TVT.
c. The rate of enterocele is similar after colposuspension and with TVT.
d. The rate of rectocele is similar after colposuspension and with TVT.

30. The failure rates for urinary incontinence after open colposuspension after 5 years are approximately:

a. 5%.
b. 20%.
c. 40%.
d. 60%.

31. What is the approximate incidence of pelvic organ prolapse in parous women?

a. 15%.
b. 25%.
c. 35%.
d. 50%.

32. Which of the many botulinum neurotoxin serotypes is most widely used in urology?

a. Neurotoxin A.
b. Neurotoxin B.
c. Neurotoxin C.
d. Neurotoxin D.

33. What is the recommended dose of onabotulinum toxin in idiopathic detrussor overactivity?

a. 100 IU.
b. 200 IU.
c. 300 IU.
d. 500 IU.

SURGERY

165. Which statement concerning X-ray gowns is correct?

a. Those worn in the operating theatre must contain lead.
b. Lead gowns are always effective at preventing transmission of X-rays.
c. They may contain antimony (Sb51).
d. They may contain iodine.

166. The Clavien-Dindo system grades complications in relation to:

a. Severity.
b. Time from surgery.
c. Individual surgeon's experience.
d. Overall survival.

167. In abdominal wall closure using a monofilament continuous suture, the ratio of suture-length to wound-length should be at least:

a. 2:1.
b. 4:1.
c. 6:1.
d. 8:1.

168. When closing a midline incision, which strategy is best in minimising the risk of surgical site infection or incisional hernia?

a. Large stitches placed more than 1 cm from the wound edge.
b. Small stitches placed 5-8 mm from the wound edge and less than 5 mm apart.
c. Alternating small (about 5-8 mm from the wound edge) with large stitches (> 1cm from the wound edge).
d. The size of the stitches does not matter, as long as the suture length:wound length ratio is more than 4:1.

164. A patient experienced an anaphylactic reaction to chlorhexidine. What may be unsafe to use during a future cystoscopy?

a. Antibiotics.
b. Sterile water.
c. Local / topical anaesthetic.
d. Water soluble iodine based skin preparation.

34. In elderly women with potential risk of cognitive dysfunction, which therapy should be avoided in the treament of incontinence?

a. Mirabegron.
b. Oxybutinin.
c. Electrostimulation.
d. Oestrogens.

35. Which ejaculation problem might be observed with α1-adrenoceptor antagonists?

a. Anejaculation.
b. Retrograde ejaculation.
c. Haematospermia.
d. Premature ejaculation.

36. Regarding the efficacy of TURP (transurethral resection of prostate):

a. The probability of requiring a second prostate operation is reported at between 1 and 2 % per year.
b. The complication rate does not increase with prostate size.
c. Short-term and long-term mortality rates are higher after open prostatectomy than after TURP.
d. Long-term complications include only urethral stricture and retrograde ejaculation.

37. What is correct regarding Detrusor Overactivity (DO) and Bladder Outlet Obstruction (BOO)?

a. In pressure-flow studies the amplitude of DO is not correlated with the grade of BOO.
b. All men with urinary urgency and BOO have DO.
c. The prevalence of DO becomes higher as BOO increases.
d. As patients get older, prevalence of DO ranges from 10% in men without BOO to 32% in men with the most severe BOO.

38. Which condition will NOT have a direct impact on the reduction of symptoms of urinary incontinence in woman?

a. Smoking cessation.
b. Reduction of caffeine intake.
c. Body mass reduction.
d. Pelvic floor muscle training.

39. A fit 63-year-old man with a 1.5 cm bulbar stricture after TUR of the prostate has had several optical urethrotomies which failed. Which is the most appropriate treatment?

a. A scrotal flap.
b. A free skin graft.
c. A pedicled penile skin flap.
d. An end-to-end anastomosis.

40. Of the following options, which is the best indication for transurethral incision of the prostate?

a. Presence of a median lobe.
b. BPH of <30 g.
c. BPH under the age of 65.
d. Prostatic cancer with obstruction.

41. The spinal cord micturition centre is anatomically located at the level of which vertebral body approximately?

a. L1.
b. L3.
c. Th6.
d. Th10.

42. The treatment of the female patient with mixed urinary incontinence should start with the management of:

a. Stress incontinence.
b. Urgency incontinence.
c. The most bothersome symptom.
d. The less bothersome symptom with least invasive treatment.

160. In a 13-year-old girl with urinary incontinence since birth the diaper test shows a continuous leakage of urine with low volume. What is the most likely diagnosis?

a. Lazy bladder.
b. Ectopic ureter.
c. Vaginal pooling.
d. Urge syndrome.

161. The most accurate diagnosis in acute scrotum in children is provided by:

a. CT scan.
b. Doppler-ultrasound.
c. Operative exploration.
d. Testicular nuclear scan.

162. What is the main cause of nocturnal enuresis in children?

a. An imbalance of urine production and bladder capacity.
b. An insufficient nocturnal ADH secretion.
c. A problem of high arousal combined with either a high night-time urine production or a night-time OAB (or both).
d. A delay in maturity of the pontine micturition center in combination with an insufficient nocturnal ADH secretion.

163. Which patients should be categorised as "high"-risk for vesicoureteral reflux (VUR) and be advised open surgery (ureteral reimplantation) rather than endoscopic surgery or antibiotic prophylaxis?

a. Toilet-trained boys and girls with low-grade VUR and lower urinary tract and bowel symptoms.
b. Small, not toilet-trained boys and girls with bilateral high-grade (4-5) VUR and unilateral renal damage.
c. Small, not toilet-trained boys and girls with bilateral high-grade (4-5) VUR and bilateral renal damage.
d. Toilet-trained boys and girls with high-grade reflux, recurrent UTI, unilateral renal damage and unilateral high-grade (4-5) VUR.

155. Which of the following possible abnormalities is most commonly found in a complete duplex system?

a. VUR in both ureters.
b. Obstruction in both ureters.
c. VUR in the lower pole moiety.
d. Vesico-ureteral reflux (VUR) in the upper pole moiety.

156. Which radiopharmaceutical is the agent of choice for demonstrating renal scarring in childhood?

a. 99m Tc-DPTA.
b. 99m Tc-DMSA.
c. 99m Tc-MAG3.
d. 99m Tc Gluconate.

157. A 10-month-old otherwise normal boy underwent a pyeloplasty. In the immediate postoperative phase the amount of fluid for intravenous maintenance is:

a. 25 ml/kg/24hr.
b. 50 ml/kg/24hr.
c. 100 ml/kg/24hr.
d. 200 ml/kg/24hr.

158. After having one child with hypospadias, what is the relative risk for a couple of giving birth to another child with hypospadias?

a. Approximately 1%.
b. Approximately 17%.
c. Approximately 42%.
d. Approximately 62%.

159. Which gene does NOT play a role in the development of hypospadias?

a. Wilms' tumor gene 1 (WT1).
b. Sonic hedghehog gene (SHH).
c. Homeobox gene a13 (HOXa13).
d. Fibroblast growth factor 8 (FGF8).

43. What is the definition of bladder pain syndrome in women?

a. Cyclic pain, accompanied with dyspareunia and infertility.
b. Non-cyclic pain, mainly exacerbated by diet, located in the flanks.
c. Cyclic pain, usually non exacerbated by voiding, located in the pelvis.
d. Non-cyclic pain, usually exacerbated by voiding, located in the pelvis.

44. Pressure flow study simultaneously measures:

a. Uroflowmetry and intravesical pressure.
b. Uroflowmetry and intraabdominal pressure.
c. Uroflowmetry, intravesical and intraurethral pressures.
d. Uroflowmetry, intravesical and intraabdominal pressures.

45. α1-Blockers:

a. Prevent need for surgery.
b. Prevent acute urinary retention.
c. Are more effective in patients with prostate <50cc.
d. Can reduce both storage and voiding lower urinary tract symptoms.

46. α1-Blockers can cause:

a. Headache.
b. Decreased libido.
c. Erectile dysfunction.
d. Floppy iris syndrome.

47. Antimuscarinic drugs can cause:

a. Diarrhea.
b. Insomnia.
c. Headache.
d. Dry mouth.

48. In studies, the odds-ratio of Intraoperative Floppy Iris Syndrome was much higher for:

a. Alfuzosin.
b. Doxazosin.
c. Tamsulosin.
d. Terazosin.

49. Which statement is correct regarding single incision urethral slings (mini-slings)?

a. Long-term results are similar to conventional mid-urethral slings.
b. Short-term results (except TVT-Secure) are similar to conventional mid-urethral slings.
c. There is no comparison for mini-slings and conventional mid-urethral slings.
d. The complication rate is higher in single-incision slings compared with conventional mid-urethral slings.

50. Bladder contractility index (BCI) is calculated during urodynamics based on the following two parameters:

a. Maximal closing pressure and maximal flow value.
b. Average flow value and maximal detrussor pressure.
c. Maximal detrusor pressure and urethral closing pressure.
d. Maximal detrusor pressure at maximal flow and maximal flow value.

51. Which advice has best evidence of helping patients to relieve urinary stress incontinence?

a. Reduce fluid intake.
b. Lose weight.
c. Reduce caffeine intake.
d. Stop smoking.

PAEDIATRICS/CONGENITAL

150. The age and the appearance of a child with a Wilms' tumour is most frequently as follows:

a. A 3-year old who looks very ill.
b. A 7-year old who looks very ill.
c. A 3-year old who does not look ill.
d. A 7-year old who does not look ill.

151. What is the most common cause of bladder outflow obstruction in males during the neonatal and infancy period?

a. Vesico-ureteral reflux.
b. Posterior urethral valves.
c. Urethral congenital stricture.
d. Hypospadias.

152. The urachus involutes to become:

a. The appendix testes.
b. The veru montanum.
c. The lateral umbilical folds.
d. The median umbilical ligament.

153. At what age should surgery be carried out for boys with undescended testes?

a. At birth.
b. Around 6 months of age.
c. Around 12 months of age.
d. At 2 years of age.

154. Complete double ureters are seen when:

a. Two metanephric blastema develop.
b. Two ureteric buds arise from the mesonephric duct.
c. A single ureteric bud divides into two parts.
d. Two mesonephric ducts arise from urogenital sinus.

149. What is the mean annual growth rate of the tumour in patients with small renal masses on active surveillance?

a. 0.1-0.3 cm.
b. 0.5-0.7 cm.
c. 0.9-1.1 cm.
d. 2.0-2.2 cm.

52. Which option is most appropriate for the management of urinary incontinence following radical prostatectomy at 3 months?

a. Artificial Urinary Sphincter.
b. Male sling.
c. Pelvic floor physiotherapy.
d. Anticholinergic medication.

53. A 79-year-old man has had medication (alpha-blocker and 5 alpha-reductase inhibitors) for 5 years. He attends for an annual review. His nocturia has increased from two times to three times but otherwise he is unchanged and overall he is not bothered by his symptoms. His urine flow rate is similar to the year before: Qmax 9 mL/S, voided volume 225mL. His residual urine volume has increased last year from 195 mL to 330 mL. Which statement is correct?

a. Watchful waiting is still an option.
b. Medical management should be abandoned because of increasing residual urine volume.
c. Bladder outflow surgery is mandatory as there is evidence of deteriorating bladder outflow obstruction.
d. It would have been better if he had had a transurethral resection of prostate a year ago.

LITHIASIS/INFECTIONS

54. Primary hyperparathyroidism:

a. Is more common in male patients.
b. Is diagnosed with ultrasound of the neck.
c. Has its peak incidence at about 50 years of age.
d. Is combined with renal stones in more than 50% of patients.

55. What is the next step after percutaneous nephrolithotomy (PNL) when bleeding occurs from the nephrostomy tract?

a. Endoscopic exploration.
b. Continuous irrigation from the nephrostomy tube.
c. Insertion of a larger nephrostomy catheter.
d. Closure of the nephrostomy catheter allowing tamponade.

56. A young woman is diagnosed with acute uncomplicated bacterial cystitis. Which pathogen is considered to be the most likely?

a. Escherichia coli.
b. Proteus vulgaris.
c. Enterococcus faecalis.
d. Staphylococcus aureus.

57. In which procedure is perioperative antibiotic prophylaxis recommended?

a. TURP.
b. Cystoscopy.
c. Circumcision.
d. Shockwave lithotripsy.

58. Which organisms produce urease?

a. Proteus mirabilis, Klebsiella pneumonia, Pseudomonas aeruginosa.
b. Escherichia coli, Proteus mirabilis, Klebsiella oxytoca, Candida humicola.
c. Enterococcus faecalis, Proteus vulgaris, Providencia stuartii, Escherichia coli.
d. Staphylococcus epidermidis, Klebsiella oxytoca, Proteus vulgaris.

144. Which factor may influence the choice between abiraterone and enzalutamide for castrate-resistant prostate cancer treatment?

a. Level of PSA.
b. Gleason score.
c. History of seizures.
d. Number of bone metastasis.

145. What is correct about renal medullary carcinoma? It:

a. Is not radiosensitive.
b. Only affects female patients.
c. Has a median survival of 5 months.
d. Is mainly frequent in Asian countries.

146. A 60-year-old man is diagnosed with low-risk prostate cancer. What should be done before deciding about treatment options?

a. Bone scan.
b. Pelvic CT scan.
c. Multiparametric magnetic resonance imaging (mpMRI).
d. No additional imaging.

147. Which treatment has been shown to have survival benefit in the setting of castrate resistant prostate cancer?

a. Zoledronic acid.
b. Denosumab.
c. Radium-223.
d. Bicalutamide.

148. What is the risk of malignancy in a Bosniak III renal cyst?

a. 5-10%.
b. 20-30%.
c. 50-60%.
d. >90%.

140. A man with a tumour of the left testicle underwent radical orchiectomy with the following postoperative results: Pure seminoma, 25 mm in maximal diameter, no rete testis invasion and negative tumour markers. What is the best management?

a. Active surveillance.
b. Adjuvant chemotherapy-one or two courses of carboplatin.
c. Adjuvant radiotherapy–paraaortic field hockeystick (dog-leg) files (para-aortic and ipsilateral iliac node) with moderate dose 20-24 Gy.
d. Retroperitoneal lymph node dissection.

141. What is the indication for a FDG-PET-CT investigation in men with a testicular tumour?

a. In all patients with a testicular tumour as a standard part of initial staging.
b. In all patients with non-seminomatous tumours.
c. In the follow-up of a seminoma with a residual mass of >3 cm at least 2 months after chemotherapy.
d. No indication.

142. How should a 70-year-old man with haematuria, positive cytology, left wall bladder tumour of 3 cm, and an additional flat lesion behind the bladder neck be treated?

a. Radical cystectomy.
b. BCG instillations.
c. Mitomycin instillations.
d. Transurethral resection of the bladder tumour.

143. A 65-year-old man with a good Performance Status, normal GFR and no comorbidities has been diagnosed with a pT3N0M0 muscle-invasive bladder cancer. How should he be treated?

a. Radical cystectomy.
b. Neoadjuvant chemotherapy and subsequent radical cystectomy.
c. Partial cystectomy and adjuvant chemotherapy.
d. Pre-operative radiotherapy (RT) and subsequent radical cystectomy.

59. Which of the following stones are radiolucent?

a. Uric acid, Amonium urate, Xanthine, 2.8-dihydroxyadenine.
b. Uric acid, Cystine, Ammonium urate Xanthine.
c. Xanthine, Uric acid, Cystine, Apatite.
d. Calcium phosphates, Apatite, Cystine, Uric acid.

60. Which kidney stone situation is the best indication for laparoscopic surgery?

a. Pelvic kidney.
b. Horseshoe kidney.
c. Ureteropelvic junction obstruction.
d. Congenital megaureter.

61. Which statement regarding general prevention of kidney stone recurrence is correct?

a. Calcium intake should be restricted.
b. High intake of animal protein should be encouraged.
c. A vegetarian diet decreases urinary pH because it is usually more acidic.
d. Vegetable intake should be encouraged because of the beneficial effects of fibre.

62. What is the main side effect of the antituberculous drug Ethambutol?

a. Ototoxicity.
b. Optic neuritis.
c. Hepatotoxicity.
d. Renal insufficiency.

63. Which of the following is NOT a complication of epididymo-orchitis?

a. Abscess formation.
b. Testicular infarction.
c. Testicular atrophy.
d. Testicular torsion.

64. Chemolysis is an effective means of therapy for the following stones EXCEPT:

a. Calcium phosphate stones.
b. Cystine stones.
c. Uric acid stones.
d. Infection stones.

65. Which is the best method of imaging for renal tuberculosis?

a. Choline PET CT.
b. CT urography.
c. Renogram.
d. Retrograde pyelography.

66. A 19-year-old man presents with acute pain and swelling of his left scrotum. Which is the most common cause?

a. Viral epididymitis.
b. Bacterial epididymitis.
c. Viral orchitis.
d. Bacterial orchitis.

67. Thiazide diuretics are indicated in renal lithiasis to correct:

a. Hyperoxaluria.
b. Idiopathic hypercalciuria.
c. Hyperuricemia due to underexcretion.
d. Hyperuricemia due to overproduction.

68. Which type of urinary stones is related to Sarcoidosis?

a. Xanthine.
b. Uric acid.
c. Calcium oxalate.
d. Magnesium ammonium phosphate.

136. What is the most frequent complication of transrectal prostate biopsy?

a. Haemospermia.
b. Haematuria >3 days.
c. Rectal bleeding >1 day.
d. Urinary tract infection.

137. Which drug is NOT approved as first-line treatment in metastatic renal cell cancer?

a. Sunitinib.
b. Axitinib.
c. Pazopanib.
d. Temsirolimus.

138. What is the treatment option for a distal, invasive urethral carcinoma, in a female patient who is otherwise fit and healthy?

a. Radical TURBT.
b. Radical cystourethrectomy with ileal conduit.
c. Radical cystourethrectomy with an ileal neobladder.
d. Radical urethrectomy with bladder neck closure and appendico-vesicostomy.

139. Which is a complication of androgen deprivation therapy in prostate cancer?

a. Hepatotoxicity.
b. Nephrotoxicity.
c. Hyperthyroidism.
d. Metabolic syndrome.

131. According to EAU guidelines, a second TURB or RE-TUR will be indicated in all the following cases, EXCEPT:

a. In all pT1 tumours.
b. In all G3 tumours except primary CIS.
c. After an incomplete initial resection of a pT1 G1 tumour.
d. If there is no muscle in the specimen after initial resection of a pTa G1 lesion.

132. What is preferred method treatment in renal tumour T1b in men fit for any surgery?

a. Laparoscopic nephrectomy.
b. Open nephrectomy with staging lympadenectomy.
c. Percutaneous radiofrequency ablation of cryoablation.
d. Resection of tumour. Laparoscopic/robot assisted or open.

133. In patients with penile cancer and inguinal lymph node metastases, the treatment of choice is:

a. Upfront radiotherapy followed by chemotherapy.
b. Chemotherapy only as this represents systemic disease.
c. Radical inguinal lymphadenectomy with adjuvant radiotherapy.
d. Radical inguinal lymphadenectomy with adjuvant chemotherapy.

134. The most important risk factor for prostate cancer is:

a. Race.
b. Age.
c. High BMI.
d. Genetic.

135. The Phoenix criteria describe recurrence after radiation therapy and brachytherapy and are defined as:

a. 3 consecutive PSA rises after therapy.
b. PSA levels exceeding 2 ng/ml from the nadir after therapy.
c. PSA levels exceeding 4 ng/ml from the nadir after therapy.
d. PSA levels exceeding 8 ng/ml from the nadir after therapy.

69. Hypercalciuria in primary hyperparathyroidism shows:

a. High serum calcium, high urinary cyclic AMP, high intestinal calcium absorption.
b. High serum calcium, high urinary cyclic AMP, normal intestinal calcium absorption.
c. High serum calcium, normal urinary cyclic AMP, normal intestinal calcium absorption.
d. High serum calcium, normal or low urinary cyclic AMP, high intestinal calcium absorption.

70. A 45-year-old female patient comes to the emergency department suffering right flank pain. A stone of 12 mm is identified in the renal pelvis of the right kidney. Which is the preferred therapeutic approach for this patient?

a. PNL.
b. ESWL.
c. ESWL + PNL.
d. Ureteroscopy.

71. Which statement about Pyelonephritic scarring is correct?

a. It always progresses to end-stage renal failure.
b. It is a risk in patients with sterile low-grade vesico-ureteric reflux.
c. It is a high-risk for patients with recurrent urinary tract infection (UTI).
d. It is most commonly developed in early childhood in the presence of reflux and UTI.

72. Which is the most effective treatment for calcium oxalate 3 cm stone in the renal pelvis?

a. Flexible ureteroscopy.
b. Percutaneous nephrolithotripsy.
c. Shock wave lithotripsy.
d. Chemolysis.

73. Which di-basic amino acid is the least soluble in urine?

a. Lysine.
b. Cystine.
c. Arginine.
d. Ornithine.

74. Which antibiotic is contraindicated for prophylaxis in a newborn with prenatal hydronephrosis?

a. Amoxycillin.
b. Trimethorprim sulfamethaxazole.
c. Nitrofurantoin.
d. Cefaclor.

75. Which sign is indicative for SIRS (Severe Inflammatory Response Syndrome)?

a. WBC 11/nL.
b. p_aCO_2 30 mmHg.
c. Respiration 18/min.
d. Temperature 36.6°C.

127. Nomograms are commonly used for preoperative risk assessment before nerve-sparing radical prostatectomy. Which is a typical parameter analyzed for stage estimation?

a. Patient's age.
b. IIEF score.
c. Gleason score.
d. Prostate volume.

128. Hormonal therapy with LHRH analogues is indicated:

a. To decrease prostate size before radical prostatectomy.
b. To treat positive surgical margins after radical prostatectomy.
c. To improve survival when used in association with radiotherapy.
d. As neoadjuvant therapy to improve survival after radical prostatectomy.

129. Concerning external beam radiotherapy for localized prostate cancer:

a. It is administered at a low dose in low-risk patients.
b. It has more side effects compared to radical surgery.
c. Second malignancies after many years are a serious problem.
d. Dose escalation has improved oncological outcome of treatment.

130. Which statement it correct regarding the indication and extent of pelvic lymph node dissection (LND) in the treatment of prostate cancer?

a. Lymphocoeles are the most common complication, being more frequent following the transperitoneal approach.
b. When comparing extended versus limited LND, similar complication rates have been reported.
c. A recent prospective mapping study confirmed that a template including the external iliac, obturator and internal iliac areas was able to correctly stage 54% of patients.
d. Extended LND includes removal of the nodes overlying the external iliac artery and vein, the nodes within the obturator fossa located cranially and caudally to the obturator nerve, and the nodes medial and lateral to the internal iliac artery.

123. A 70-year-old man had a retropubic adenomectomy for BPH 100 g; his pre-operative PSA-level was 10 ng/mL. Histologically an a denocarcinoma of <5% is found, Gleason 6.
The most common treatment would be:

a. Close follow-up.
b. Pelvic irradiation.
c. Endocrine therapy.
d. Radical prostatectomy.

124. Von Hippel-Lindau syndrome is a disease commonly associated with renal cell carcinoma and:

a. Renal cysts only.
b. Epididymal and renal cysts.
c. Seminal vesicle and renal cysts.
d. Epididymal and seminal vesicle cysts.

125. Retroperitoneal lymphadenectomy is indicated in:

a. Stage I seminoma.
b. Stage II seminoma.
c. Residual masses after chemotherapy for non-seminoma with serum markers at least 5 times above normal levels.
d. Residual retroperitoneal masses after chemotherapy of non-seminomatous germ-cell tumours with normal markers.

126. Which benign renal tumour is more frequently associated with hypertension?

a. Leiomyoma.
b. Haemangioma.
c. Angiomyolipoma.
d. Juxtaglomerular tumour.

MISCELLANEOUS

76. The principal dietary source of Iso-flavones is:

a. Soybeans.
b. Tomato.
c. Fruits.
d. Olive oil.

77. Proximal ureter is mainly vascularised by a ureteric artery arising from the:

a. Aorta.
b. Renal artery.
c. Gonadal artery.
d. External iliac artery.

78. Which statement is correct with regard to the location of Denonvilliers fascia?

a. Covers Santorini's plexus.
b. Envelops the neurovascular pedicles.
c. Contributes to the formation of the puboprostatic ligaments.
d. Envelops the posterior surface of the seminal vesicles and prostate.

79. The main adrenal vein drains into the:

a. Inferior vena cava bilaterally.
b. Renal vein on the left and phrenic vein on the right.
c. Renal vein on the left and inferior vena cava on the right.
d. Inferior vena cava on the right and phrenic vein on the left.

80. Which diversion has the highest incidence of megaloblastic anemia as a late complication?

a. Mainz I pouch.
b. Ileal W-neobladder.
c. Indiana pouch.
d. Bricker conduit.

81. What percentage of normal serum calcium is present in free ionic form?

a. 15%.
b. 35%.
c. 45%.
d. 65%.

82. Which statement on crossing vessels is correct?

a. Less than 10% of the general population have crossing vessels.
b. The vast majority of crossing vessels causes obstruction.
c. The work-up for crossing vessels is indicated prior to endopyelotomy.
d. The presence of a crossing vessel does not contraindicate endopyelotomy.

83. The external diameter of an 18 Fr (Charrière) catheter is approximately:

a. 1.8 mm.
b. 3 mm.
c. 4.8 mm.
d. 6 mm.

84. The occurrence of cancer at the site of a ureterosigmoid anastomosis is well known. What is the characteristic appearance of this tumour at colonoscopy?

a. Ulcerated polyps in the rectum.
b. Blood clot in the ureteric effluent.
c. A polypoid lesion at the ureteric anastomosis.
d. A cavitating ulcer replacing the ureteric orifice.

85. Geriatric 8 is:

a. Treatment outcome predicting tool.
b. Tool to assess functional status of cancer patients.
c. Health status screening tool for senior adults (>70 years old).
d. Performance status assessment tool for oncological patients.

119. What is the improvement of 5-year survival in patients with muscle-invasive bladder cancer treated with cisplatinum-based neoadjuvant chemotherapy?

a. 0%.
b. 5%.
c. 15%.
d. 25%.

120. To detect bone metastases of the spine and the pelvifemoral area in patients with high-risk PCa, MRI evaluation is:

a. Similar to that of a combination of bone scan and CT.
b. As sensitive as that of 11C-choline PET/CT.
c. Less sensitive than a combination of bone scan and targeted radiographs.
d. Less sensitive than ultrasound.

121. A parasite that may infect humans is strongly linked to the development of bladder cancer. Which one?

a. Mycobacteria tuberculosis.
b. Neisseria gonorrhoeae.
c. Entamoeba histolyticum.
d. Schistosomiasis haematobium.

122. The most common histological type of testicular cancer with a peak incidence between the age of 35 and 39 years is:

a. Seminoma.
b. Chorioncarcinoma.
c. Yolk Sac tumour.
d. Embryonal carcinoma.

114. There is an increased risk of malignant change in the foreskin in:

a. Psoriasis.
b. Lichen planus.
c. Lichen sclerosus.
d. Fixed drug eruption.

115. Laparoscopic nephroureterectomy for upper urinary tract urothelial cell carcinoma:

a. Is the gold standard treatment.
b. Has a high risk of tumour seeding.
c. Has better oncological results than the open approach.
d. Has better functional outcomes than the open approach.

116. Which statement regarding distant recurrence of penile cancer is correct?

a. Up to 50% of distant recurrences occur in the first year of follow up.
b. Most distant recurrences occur in the first 2 years of follow up.
c. Most distant recurrences occur in the 2nd and 3rd year of follow up.
d. After successful initial treatment there are no distant recurrences during follow up.

117. The best imaging modality to stage urethral carcinoma is:

a. Pelvic MRI.
b. Cystoscopy.
c. Urethral biopsy.
d. High-resolution ultrasound.

118. What is the probability of developing muscle invasive bladder cancer in patients with carcinoma in situ of the bladder, that previously responded to intravesical BCG treatment?

a. 0-5%.
b. 10-20%.
c. 30-40%.
d. 50-60%.

ONCOLOGY

86. A 25-year-old man is screened for primary infertility and there is a history of left orchidopexy at the age of 7 years. Left testicular volume is 5 cc, right testicular volume is 15 cc. Ultrasound shows microcalcification and an inhomogeneous parenchyma on the left side. What should be done?

a. Nothing, since the risk of testis cancer is not increased.
b. Testicular biopsy, since the risk of carcinoma in situ is clearly elevated.
c. Testicular biopsy, since the chance of testis cancer is more than 30%.
d. Orchidectomy on the left side, since the risk of cancer in this man is very high.

87. What is the approximate recurrence risk of patients treated surgically for penile cancer with lymph node metastases?

a. 5%.
b. 20%.
c. 40%.
d. 60%.

88 What is the prognosis for signet ring cell urachal adenocarcinoma?

a. Poor.
b. Normal.
c. Good.
d. Excellent prognosis.

89. What is the approximate percentage of understaging of patients with clinical stage T2b prostate cancer?

a. 20%.
b. 40%.
c. 60%.
d. 80%.

90. In cases of PSA measurements, if serum cannot be processed within 3 hours of the collection, serum total and free PSA long-term storage should be done at what temperature?

a. 0 °C.
b. -20 °C.
c. -50 °C.
d. -70 °C.

91. What is the most important factor used to decide whether a nerve sparing approach for a radical prostatectomy is appropriate?

a. Patients' BMI.
b. Prostate volume.
c. Sexual activity before surgery.
d. Clinical stage, PSA level, biopsy Gleason score.

92. What is the standard approach to cT1a RCC of 3,5 cm ?

a. Laparoscopic radical nephrectomy.
b. Watchful waiting.
c. Open or laparoscopic partial nephrectomy.
d. Ablative techniques: cryo and radiofrequency.

93. If there is positive cytology and a normal cystoscopy, the most likely explanation is:

a. Carcinoma in situ.
b. False positive cytology.
c. The endoscopist has missed a lesion in the bladder.
d. Carcinoma of the upper tract.

110. The most important risk factor for germ cell testicular tumour is:

a. Cryptorchidism.
b. Testicular cancer at the father.
c. Tumour in the contralateral testicle.
d. Oestrogen therapy of the mother during pregnancy.

111. What does minimal androgen blockade (peripheral androgen blockade) mean?

a. Extracellular inhibition of 5-α-reductase and intracellular blockade of androgen receptor.
b. Intracellular inhibition of 5-α-reductase and intracellular blockade of androgen receptor.
c. Intracellular inhibition of 5-α-reductase and extracellular blockade of androgen receptor.
d. Extracellular inhibition of 5-α-reductase and extracellular blockade of androgen receptor.

112. During laparoscopic partial nephrectomy the average intra-operative ischaemia time:

a. Is shorter than in the open approach.
b. Is comparable to the open approach.
c. Is longer than in the open approach.
d. Has no significant impact on long-term renal function.

113. How frequently do febrile complications occur after transrectal prostate biopsies in patients?

a. < 5%.
b. 8-12%.
c. 15-20%.
d. ≥20%.

106. Randomized controlled trials comparing placebo versus antibiotic prophylaxis in prostate biopsy show the following results:

a. There are no studies assessing the incidence of symptomatic UTI with placebo versus antibiotic.
b. Significant reduction in the incidence of bacteriuria and symptomatic UTI for the antibiotic arm.
c. For the antibiotic arm, bacteriuria varies between 8.6% and 20% and symptomatic UTI between 3% and 30%.
d. Significant reduction in the incidence of bacteriuria and no difference in the incidence of symptomatic UTI for the antibiotic arm.

107. Regarding the complications of laparoscopic partial nephrectomy which statement is correct?

a. Bleeding is the most common major complication.
b. Urinary fistulas can be reduced by the use of sealing agents.
c. The incidence of complications is directly related to tumour size.
d. The complications are less frequent when a transperitoneal approach is used.

108. Laparoscopic-assisted and open radical cystectomy differ significantly, EXCEPT in:

a. Postoperative neobladder function.
b. Operative time.
c. Blood loss and transfusion rate.
d. Postoperative complications.

109. What is the half-life time of human choriogonadotropin (HCG)?

a. 1-2 days.
b. 5-7 days.
c. 14-16 days.
d. 30 days.

94. What effects can androgen deprivation therapy have on the skeleton?

a. Increased risk of fracture.
b. Exacerbation of osteopenia or osteoporosis that might have been present at baseline.
c. Increased bone metabo ism that may render the bone microenvironment more favourable for the development of bone metastases.
d. All of the above.

95. In patients with locally advanced prostate cancer on watchful waiting, what is an important factor associated with a high-risk for progression and death due to prostate cancer?

a. A PSA doubling time (PSADT) of <12 months.
b. A PSADT of >12 months.
c. A PSADT of <6 months.
d. A PSADT of >6 months.

96. Which biomarker has shown to be a predictor for survival in kidney cancer patients?

a. PSA.
b. CEA.
c. CD4/CD8 ratio.
d. Carbonic anhydrase IX (CA IX).

97. What drug is accepted as the standard first-line therapy in metastatic RCC with low or intermediate risk criteria:

a. Sunitinib.
b. Sorafenib.
c. Bevacizumab.
d. Temsirolimus.

98. Laparoscopic partial nephrectomy is:

a. Not an accepted alternative to open partial nephrectomy.
b. Considered the gold standard treatment for kidney tumours ≤4 cm (T1a).
c. Considered the gold standard treatment for kidney tumours ≤7 cm (T1b).
d. Considered an acceptable alternative to open partial nephrectomy for kidney tumours ≤4 cm.

99. Increased tolerability of TRUS prostatic biopsy is best achieved by:

a. Intrarectal local anaesthesia (IRLA).
b. Oral medication (tramadol/acetaminophen).
c. Periprostatic nerve block with lidocaine injection (PPNB).
d. Intrarectal local anaesthesia (IRLA) and periprostatic nerve block with lidocaine injection (PPNB).

100. Which substance has to be evaluated for the result of the PCA3 test?

a. PCA3-DNA.
b. PCA3-mRNA.
c. PCA3-mRNA and PSA-DNA.
d. PCA3-mRNA and PSA-mRNA.

101. The most important risk factor for the development of bladder carcinoma is:

a. Smoking.
b. Exposure to radiotherapy.
c. Exposure to aromatic amines.
d. Occupational exposure to urothelial carcinogens.

102. Bone metastases:

a. Can result in potentially debilitating skeletal-related events (SREs).
b. Occur in less than 10% of patients with urogenital metastatic malignancies.
c. Occur as a result of the balanced activity between osteoclasts and osteoblasts.
d. Are typically indolent and do not require treatment beyond standard anticancer therapy.

103. The only bisphosphonate to receive widespread regulatory approval because it demonstrated objective and long-term clinical efficacy in delaying the onset and reducing the risk of skeletal-related events (SREs) in patients with castration-resistant prostate cancer is:

a. Clodronate.
b. Risedronate.
c. Pamidronate.
d. Zoledronic acid.

104. When tumour cells invade bone, they:

a. Reduce bone resorption.
b. Prevent osteoclast-mediated release of growth factors.
c. Secrete growth factors that promote the release of RANK Ligand.
d. Increase the expression of osteoprotegerin relative to RANK Ligand.

105. Bone metastases from prostatic carcinoma are most frequently found in the:

a. Ribs.
b. Bony pelvis.
c. Lumbar spine.
d. Proximal part of the femur.

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INTRODUCTION

This publication contains the MCQs of the In-Service Assessments organised by the EBU Examination Committee in 2015 and 2016.

Participation in the EBU In-Service Assessment is open to all residents and urologists. It is meant to provide the participants information regarding their present state of knowledge. Especially for those stil in training it may serve as a continuous monitoring system. As they progress in their training, their results should improve over the years. It also provides insight in areas which need additional study and reading.

The content of the assessment covers both clinical and basic sciences. The contents of the MCQs do not only reflect current management of specific pathologies, but focus on issues of basic science as well. The purpose is to stimulate participants to study clinical urology and to acquire some insight in the basic research that will form the basis of urological practice in the future.

Many of the MCQs are rather specific: they have been included in the EBU In-Service Assessment but are in general not suitable for the official EBU Examination in Urology (FEBU). The assessment and the examination can therefore not be compared. Questions included in the EBU Examination in Urology are more general in nature and test knowledge and skills which all European urologists should have.

Please be aware that if you are reading a booklet that is not current, there may be answers that were correct when the questions were written. Medical knowledge may have changed and some of the answers may no longer be accurate.

For more information about the annual In-Service Assessment and other activities visit the EBU website at www.ebu.com.

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CORRECT ANSWERS

101. B	126. B	151. B	176. A
102. A	127. A	152. B	177. C
103. C	128. A	153. C	178. A
104. A	129. B	154. B	179. D
105. A	130. C	155. B	180. B
106. D	131. B	156. A	181. D
107. C	132. C	157. D	182. B
108. C	133. C	158. D	183. D
109. D	134. B	159. B	184. D
110. B	135. B	160. B	185. D
111. D	136. A	161. D	186. D
112. D	137. A	162. B	187. C
113. C	138. C	163. B	188. C
114. B	139. A	164. B	189. C
115. A	140. C	165. B	190. C
116. B	141. C	166. A	191. A
117. C	142. B	167. B	192. C
118. A	143. C	168. D	193. C
119. D	144. C	169. A	194. A
120. C	145. D	170. B	195. C
121. D	146. D	171. B	196. C
122. D	147. D	172. A	197. B
123. C	148. B	173. D	198. D
124. D	149. D	174. D	
125. B	150. D	175. A	

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CORRECT ANSWERS

1. D	26. C	51. D	76. B
2. ~~A~~ C	27. C	52. A	77. A
3. D	28. D	53. C	78. D
4. A	29. A	54. C	79. C
5. D	30. B	55. A	80. A
6. A	31. B	56. A	81. A
7. A	32. A	57. D	82. D
8. C	33. B	58. C	83. B
9. A	34. C	59. D	84. B
10. B	35. B	60. A	85. C
11. C	36. C	61. A	86. D
12. D	37. A	62. A	87. D
13. B	38. B	63. A	88. D
14. A	39. B	64. A	~~89. A~~
15. C	40. C	65. A	90. D
16. D	41. A	66. D	91. A
17. A	42. D	67. C	92. D
18. B	43. B	68. D	93. C
19. A	44. D	69. C	94. D
20. C	45. C	70. B	95. D
21. C	46. C	71. D	96. C
22. C	47. D	72. B	97. D
23. D	48. C	73. B	98. D
24. B	49. B	74. B	99. B
25. C	50. D	75. D	100. A

ANDROLOGY/INFERTILITY

1. Which of these side effects is rarely seen after sildenafil administration?

   a. Diarrhoea.
   b. Dizziness.
   c. Dyspepsia.
   d. Penile pain.

2. The most bioactive androgen is:

   a. Testosterone.
   b. Androstenedione.
   c. Dihydrotestosterone.
   d. Dehydroepiandrosterone (DHEA).

3. A couple has visited the outpatient clinic for primary infertility for 1 year. What is their chance of spontaneous conception in the next years?

   a. 10%.
   b. 15%.
   c. 25%.
   d. 50%.

4. What is required for the development of the foetal testis?

   a. The SRY gene.
   b. The SRY gene and the AZF gene.
   c. Testosterone and 5-alpha-reductase.
   d. Both the complete X and Y chromosome.

5. What is a contraindication to testosterone replacement therapy?

   a. Hyperlipidaemia.
   b. Diabetes mellitus.
   c. Congestive heart failure.
   d. Lower urinary tract symptoms.

6. What is the duration of erection time to define a state of priapism?

a. 4 hr.
b. 8 hr.
c. 14 hr.
d. 20 hr.

7. A varicocele occurs most commonly on the left side because:

a. The left testicular vein drains into the renal vein.
b. The left testicular vein responds to testosterone.
c. The left testicular vein drains into collaterals in the groin.
d. The left testicular vein drains into the vena cava close to the renal vein.

8. After penile prosthesis implantation, what could happen if there has been an inadequate distal dilation?

a. Infection of the corpora cavernosa.
b. Malfunction of the penile prosthesis.
c. Supersonic transport / "Concorde" deformity.
d. Erosion and perforation of the corpora cavernosa.

9. In a man with congenital bilateral absence of the vas deferens (CBAVD) and a cystic fibrosis transmembrane conductance regulator (CFTR) gene negative, which test is mandatory before ICSI?

a. Test for chromosomal abnormalities.
b. Y chromosome microdelections.
c. LH levels.
d. CFTR gene examination in the partner.

10. Which nerves make up the pelvic plexus?

a. Inferior hypogastric and pelvic nerve.
b. Pudendal and superior hypogastric nerve.
c. Pelvic and pudendal nerve.
d. Dorsal and inferior hypogastric nerve.

196. The imaging tool of choice in evaluation and classification of a blunt renal trauma is:

a. MR urography.
b. Ultrasonography.
c. CT scan with contrast.
d. Renographic isotope study.

197. Iatrogenic partial ureteric injury is best treated by:

a. Early open surgery.
b. Stenting for 3-6 weeks.
c. Immediate ureteroscopy.
d. Ipsilateral nephrostomy tube.

198. In complete rupture of the posterior urethra, which is correct?

a. Buccal mucosa is always needed.
b. Blood at the external urethral meatus is a rare sign.
c. Immediate exploration is the treatment of the choice.
d. It is best treated by suprapubic cystostomy and deferred repair.

11. Chronic dosing with PDE5 inhibitors among diabetic men has been shown to:

a. Have little benefit, as the highest available dose is generally more efficacious.
b. Work initially but all long-term studies show a tachyphylaxis effect within 6 months.
c. Improve flow mediated dilation and erectile function scores on IIEF in animal models and human volunteers.
d. Be not tolerated by most men, and frequent interactions with co-administered medications limit this indication.

12. Paternity rates in unilateral cryptorchidism are approximately:

a. 30%.
b. 50%.
c. 70%.
d. 90%.

13. Which is NOT a contraindication for testosterone treatment in male hypogonadism?

a. Prostate cancer.
b. Haematocrit < 50%.
c. Male breast cancer.
d. Severe sleep apnoea.

14. Which drug is NOT recommended for the treatment of premature ejaculation?

a. Lorazepam.
b. Clomipramine (TCA).
c. Lidocaine-Prilocaine cream.
d. Selective Serotonin Reuptake Inhibitors (SSRI).

15. According to evidence in the literature, which treatment could be used in male contraception?

    a. Sildenafil.
    b. Cabergolin.
    c. Testosterone.
    d. Human Corionic Gonadotrophin and rFSH.

16. A 28-year-old man presents with lifelong premature ejaculation, he usually ejaculates prior to vaginal penetration. Which therapeutic manoeuvre will NOT provide any benefits for this problem?

    a. On demand dosing with dapoxetine.
    b. Psychosexual counselling including the squeeze technique.
    c. Regular dosing of a selective serotonin reuptake inhibitor such as paroxetine.
    d. Regular dosing with a phosphodiesterase type 5 (PDE5) inhibitor such as tadalafil.

17. Which drug used in hormonal treatment of hypogonadal men is isolated from the urine?

    a. hCG.
    b. PRL.
    c. LHRH.
    d. LH.

18. Hypogonadotropic hypogonadism can be caused by:

    a. Mumps orchitis.
    b. Kallmann Syndrome.
    c. Varicocele.
    d. Hyperprolactinaemia.

192. A 16-year-old boy presents with sudden onset of acute pain in the right testicle referred to the iliac fossa. Body temperature is 37.6 °C. The right scrotum is enlarged, inflamed and very tender. How should this case be managed?

    a. Immediate antibiotic therapy.
    b. Scrotal doppler ultrasonography.
    c. Emergency scrotal surgical exploration.
    d. Urethral discharge bacteriological examination.

193. A young man has fallen 3 meters from a ladder. He is haemodynamically stable. A CT-scan demonstrates two kidneys, normal uptake and excretion of contrast on the right, but no uptake or excretion from the left. There is no haematoma or extravasation of contrast. What is recommended?

    a. Plan for delayed left-sided nephrectomy.
    b. Immediate operative exploration of the left kidney.
    c. Angiography for further diagnostics and treatment.
    d. Nothing, but analgesics, as the right kidney is okay.

194. Which is an absolute indication for surgical repair of a blunt bladder rupture injury?

    a. Intraperitoneal bladder rupture.
    b. Significant extraperitoneal bladder rupture with gross hematuria.
    c. Significant extraperitoneal bladder rupture with extravasation of contrast into the scrotum.
    d. Significant bladder rupture associated with pelvic fracture requiring treatment by external fixation.

195. When a bladder rupture is treated surgically, the preferred method is:

    a. A single-layer vesicorraphy with absorbable sutures.
    b. A single-layer vesicorraphy with non-absorbable sutures.
    c. A two-layer vesicorraphy with absorbable sutures.
    d. A two-layer vesicorraphy with non-absorbable sutures.

187. When a bladder rupture is treated surgically, the preferred method is:

a. A single-layer vesicorraphy with absorbable sutures.
b. A single-layer vesicorraphy with non-absorbable sutures.
c. A two-layer vesicorraphy with absorbable sutures.
d. A two-layer vesicorraphy with non-absorbable sutures.

188. The kidney is the most commonly injured genitourinary organ. Male to female ratio is:

a. 1 to 1.
b. 2 to 1.
c. 3 to 1.
d. 3 to 2.

189. A Page kidney is:

a. A shattered kidney due to blunt trauma.
b. A non-functioning kidney after trauma.
c. Late compression of the kidney leading to hypertension after trauma.
d. A late arterio-venous fistula of the kidney after trauma.

190. A 25-year-old man had blunt trauma. He has a large hematoma of the scrotum. The best management option is:

a. Local compression, cooling and antibiotic treatment.
b. Angiography and embolisation.
c. Surgical exploration.
d. Percutaneous drainage of haematocele.

191. What is the most common cause of VVF (vesico-vaginal fistula) in Europe?

a. Injury to the bladder during hysterectomy for benign conditions.
b. Injury to the bladder during hysterectomy for malignant conditions.
c. Injury to the bladder during caesarean section.
d. Injury to the bladder during obstetric manouvers.

19. What is the main source of the arterial blood supply to the penis?

a. Paired pudendal internal artery.
b. Paired pudendal external artery.
c. External iliac artery.
d. Hemorrhoidal artery.

20. According to the EAU guidelines for male infertility which men are likely to benefit from varicocele repair?

a. A man with oligospermia, a varicocele with reflux and secondary infertility.
b. A man with a young partner, a clinical varicocele and a short infertility duration.
c. A man with at least 2 years of infertility duration, oligospermia and a clinical varicocele.
d. A man with severe oligospermia: varicocele repair in this case will improve the chance of a successful artificial reproductive technique.

FUNCTIONAL/BPH/INCONTINENCE

21. Which statement is correct in men with benign prostatic hyperplasia?

    a. Treatment is mandatory if there is a large residual urine volume.
    b. Residual urine volume is most accurately measured by ultrasound.
    c. Outflow obstruction is possible if there is a small residual urine volume.
    d. Residual urine volume predicts outflow obstruction more accurately than maximum flow rate.

22. In patients with bladder outlet obstruction (BOO), bladder wall thickening results from:

    a. Desensitisation of bladder C fibres.
    b. Proliferation of the epithelial cells.
    c. Smooth muscle cells and extracellular matrix alteration.
    d. Accumulation of elastic fibres with increased elastic fibres/collagen fibers ratio.

23. Almost all BPH specimens show inflammatory infiltrates at histologic evaluation. Which answer is correct?

    a. More than 50% of infiltrating cells are granulocytes.
    b. The number of infiltrating cells decreases with age.
    c. Macrophages are mostly absent.
    d. The infiltrate consists predominantly of CD4-positive T-lymphocytes.

24. Bladder contractility index (BCI) is defined as:

    a. Pdet Qmax + 2 Qmax.
    b. Pdet Qmax + 5 Qmax.
    c. Pdet Qmax + 10 Qmax.
    d. Pdet Qmax x 5 Qmax.

TRAUMA/EMERGENCY

183. In treatment of ischemic priapism one described method is a veno-corporal shunt where vena saphena magna is anastomosed end-to-side to corpus carvernosum. This technique was introduced by:

    a. Winter.
    b. Ebbehoj.
    c. Al-Ghorab.
    d. Greyhack.

184. In traumatic posterior urethral distraction defects:

    a. Endoscopic realignment is associated with lower rates of urinary incontinence than anastomotic urethroplasty.
    b. Endoscopic realignment is associated with lower rates of erectile dysfunction than anastomotic urethroplasty.
    c. Bulboprostatic anastomotic techniques often damage the external urinary sphincter and generate urinary incontinence in a significant percentage of cases.
    d. In most cases patients maintain continence after surgery due to the integrity of the internal urethral sphincter.

185. What is the gold standard diagnostic method for the radiographic assessment of stable patients with renal trauma?

    a. Intravenous urogram.
    b. Ultrasonography.
    c. Magnetic resonance imaging.
    d. Computerised tomography.

186. Which statement concerning iatrogenic renal trauma is correct?

    a. Absorption of irrigation fluid is the most feared complication in PCNL.
    b. A large perirenal haematoma is observed in about 10% of patients after a renal biopsy.
    c. A urinoma after endopyelotomy is considered a major trauma.
    d. The risk for arterial pseudoaneurysm after partial nephrectomy is less than 1%.

182. Which statement about donor nephrectomy is correct?

a. Laparoscopic donor nephrectomy minimises warm ischemia time compared to hand-assisted laparoscopic donor nephrectomy.
b. Open donor nephrectomy should be performed by an extraperitoneal approach through a subcostal or dorsal lumbotomy incision.
c. The transplant recipient should get the 'better' kidney from the donor.
d. Deceased donor donation allows the patient to avoid long waiting list times.

25. The MTOPS study and the CombAT have evaluated the combination of:

a. α-blockers and desmopressin.
b. α-blockers and antimuscarinics.
c. 5α-reductase inhibitors and α-blockers.
d. 5α-reductase inhibitors and antimuscarinics.

26. Which statement concerning LUTS/BPH and concomitant OAB symptoms or concomitant ED is correct?

a. α1-AR antagonists are the preferred treatment for OAB symptoms in women.
b. OAB symptoms occur more than 15% more frequently in women than in men.
c. OAB symptoms such as urgency, nocturia and increased daytime frequency severely affect quality of life (QoL).
d. Both LUTS/BPH and ED are highly prevalent in ageing men, but LUTS is no independent risk factor for sexual dysfunction.

27. Which statement regarding the placebo effect in the medical management of LUTS in elderly men is correct?

a. There is only a short-term (< 3months) placebo effect.
b. The placebo effect involves only symptoms and not objective (i.e. uroflow parameters).
c. There is a long-lasting (>12 months) placebo effect for both symptoms and maximum flow rate.
d. None of the long-term placebo controlled trials have demonstrated a long-lasting placebo effect.

28. A symptom of grade I stress incontinence most likely is:

a. Nocturia.
b. Dysuria.
c. Frequency.
d. Involuntary urine loss at physical strain.

29. With regards to efficacy and safety of solifenacin as first line treatment for OAB:

a. Solifenacin is non-inferior to tolterodine ER.
b. Solifenacin is inferior to other anticholinergic drugs and causes more adverse events.
c. Solifenacin is more efficacious than the other anticholinergic drugs but is followed by a higher adverse event rates.
d. Solifenacin is less efficacious that the other anthicolinergic drugs but is followed by a lower adverse event rates.

30. A 45-year-old lady, who is wheelchair bound secondary to multiple sclerosis presents with urinary incontinence. How should she be assessed?

a. Urine culture, serum electrolytes.
b. Urine culture, serum electrolytes, ultrasound urinary tract.
c. Urine culture, serum electrolytes, ultrasound urinary tract and urodynamics.
d. Urine culture, serum electrolytes and measurement bladder post void residual.

31. Which is correct concerning the storage phase of the urine?

a. Non-adrenergic and adrenergic inhibition.
b. Beta-adrenergic inhibition, alpha-adrenergic excitation.
c. Alpha-adrenergic inhibition, beta-adrenergic excitation.
d. None of the above.

32. Which procedure should not be considered as a routine procedure for the evaluation of LUTS which is suggestive of BPH?

a. Cystoscopy.
b. Urinanalysis.
c. Imaging of urinary tract with ultrasonography.
d. Blood analysis (serum sodium, serum creatinine, PSA).

177. Captopril is a very effective drug in renovascular hypertension. The mechanism of action involves:

a. Inhibition of renin production.
b. Blocking Angiotensin II receptors.
c. Inhibition of angiotensin converting enzyme (ACE).
d. Vasodilatation as a result of an increase of Angiotensin I.

178. Renal papillary necrosis is most commonly associated with which condition?

a. Diabetes mellitus.
b. Diabetes insipidus.
c. Obstructive uropathy.
d. Sickle-Cell hemoglobinopathy.

179. Following renal transplantation, ureteral stenosis occurs more often at the level of the:

a. Proximal ureter.
b. Uretero-pelvic junction.
c. Middle part of the ureter.
d. Uretero-vesical anastomosis.

180. Which physiological change can occur during pregnancy?

a. Decreased tubular filtration.
b. Increased renal plasma flow.
c. Decreased glomerular filtration rate.
d. Dilatation of the left ureter in over 80%.

181. Which hormone is most important in urine production at night?

a. Aldosterone.
b. Corticosteroids.
c. Renin-angiotensin system.
d. Vasopressin.

172. Renal biopsy should be considered in patients presenting with haematuria and:

a. Proteinuria.
b. White cells casts.
c. Isomorphic red cells.
d. Abnormal urine cytology.

173. Examination of the urine in patients with glomerular bleeding usually shows:

a. Eosinophils.
b. Oval fat bodies.
c. White cell casts.
d. Dysmorphic red cells.

174. The optimum treatment for renal artery stenosis, with narrowing at the mid-portion of the main arterial trunk, in a transplanted kidney producing hypertension resistant to medical therapy, is:

a. Nephrectomy.
b. Medical treatment.
c. Surgical treatment of the stenosis.
d. Percutaneous dilatation of the artery.

175. What electrolyte abnormalities occur with the use of stomach for urinary diversion?

a. Hypochloremic metabolic alkalosis.
b. Hyperchloremic metabolic acidosis.
c. Hyperchloremic metabolic alkalosis.
d. Hyperchloremic, hypernatremic metabolic acidosis.

176. Tamm-Horsfall protein is produced by cells of the:

a. Loop of Henle.
b. Convoluted tubules.
c. Bellini collecting duct.
d. Juxtaglomerular apparatus.

33. For the diagnosis of nocturnal polyuria what should be the percentage of urine excretion overnight when you compare it with the 24-hour urine excretion?

a. ≥15%.
b. ≥33%.
c. ≥50%.
d. ≥60%.

34. Which substance used chronically as a recreational drug may cause diminished bladder capacity and compliance?

a. Methamphetamine.
b. Cocaine.
c. Ketamine.
d. Tetrahydrocannabinol.

35. For which indication is sacral neuromodulation not a treatment option?

a. Voiding dysfunction.
b. Stress incontinence.
c. Detrusor overactivity.
d. Chronic pain syndrome.

36. In case of catheterization because of acute urinary retention in men, which is <u>not</u> necessary?

a. Sterile catheterization procedure.
b. Closed drainage system.
c. Antibiotic prophylaxis.
d. Prompt relief of the obstruction.

37. There are seven serotypes of botulinum neurotoxins.
Which one is most widely used in urological applications?

a. Neurotoxin A.
b. Neurotoxin B.
c. Neurotoxin C.
d. Neurotoxin D.

38. In men affected with bladder outlet obstruction, the following alteration of Smooth Muscle Cell contractile proteins is observed:

a. Decreased actin / myosin ratio.
b. Increased actin / myosin ratio.
c. Decreased desmin / actin ratio.
d. A parallel decrease of myosin and actin.

39. Which cytokines have a role in permanent attraction of leukocytes into prostate tissue?

a. IL-17.
b. IL-15 and interferon-gamma.
c. Vascular endothelial growth factor.
d. Transforming growth factor-and IL-10.

40. Which statement regarding the combination of Dutasteride and Tamsulosin based on the CombAT-trial is correct?

a. Mean prostate volume in the CombAT-trial was similar as in MTOPS.
b. The risk of acute urinary retention under Tamsulosin was independent of prostate volume.
c. Combination therapy was superior to either monotherapy regarding the symptomatic outcome.
d. After 4 years, Tamsulosin yielded a higher improvement on the symptom score than Dutasteride.

41. Which segments of spinal cord are tested by a cremasteric reflex?

a. L1-L2.
b. L2-L4.
c. L4-L5.
d. L5-S1.

42. Symptoms of pelvic organ prolapse include:

a. Mainly bowel symptoms.
b. Mainly pelvic floor complaints.
c. Mainly lower urinary tract complaints.
d. Lower urinary tract, bowel and sexual complaints.

TRANSPLANTATION/NEPHROLOGY

168. Absolute contraindication for kidney transplantation is:

a. HIV infection.
b. Acute infection.
c. Malignant solid tumours.
d. All of the above.

169. The commonest cause of microscopic haematuria in a man below 40 years is:

a. IgA nephropathy.
b. IgM nephropathy.
c. Alports' syndrome.
d. Goodpastures' syndrome.

170. How can one best protect renal function when performing Nephron Sparing Surgery?

a. Add mannitol or furosemide intraoperatively.
b. Limit ischemia.
c. Hydrate preoperatively.
d. Use Cold ischemia routinely.

171. The "two-kidney, one-clip" model of renovascular hypertension is characterized by:

a. Suppression of renin release by the stenotic kidney.
b. Sodium retention by the stenotic kidney.
c. Hypervolaemia.
d. Bilateral increased renin secretion.

166. Which muscle can be most frequently interposed between the vagina and the bladder during the surgical repair of a complex vesico-vaginal fistula?

a. Gracilis muscle.
b. Sartorius muscle.
c. Pectineus muscle.
d. Great abductor muscle.

167. Bleeding vessels encountered during a circumcision should be managed by:

a. Monopolar electrocautery.
b. Bipolar electrocautery.
c. Application of paraffin wax.
d. Compression.

43. In a male patient with detrusor sphincter dyssynergia (DSD), a high detrusor leak point pressure, vesico-ureteral reflux, and commencing of deterioration in upper urinary tract function, a therapy is chosen. Which therapy has the LOWEST chance to prevent further deterioration?

a. Bladder augmentation.
b. Reimplantation of both ureters.
c. Dorsal rhizotomy of the sacral nerves.
d. Anti-cholinergic medication in combination with self-catheterisation.

44. Which is the most appropriate choice of tolterodine for second-line therapy of other anti-cholinergic drugs?

a. Extended release therapy.
b. Immediate release 1 mg daily.
c. Immediate release 12 mg daily.
d. No evidence exists for any formulation.

45. Symptoms of overactive bladder:

a. Are invariably progressive.
b. Are more prevalent in women.
c. May fluctuate in severity with time.
d. Are defined by the presence of nocturia.

46. Which drug is the least uroselective alpha blocker?

a. Silodosin.
b. Alfusosin.
c. Doxasosin.
d. Tamsulosin.

47. A man on chronic corticosteroid therapy undergoes a monopolar Transurethral Resection of the Prostate (TURP) and is given intravenous hydrocortisone 50 mg every six hours that day. On the first postoperative day, his serum sodium is 123 mEq/L. What is the most likely cause of hyponatremia?

    a. Salt-losing nephropathy.
    b. Hypotonic intravenous fluids.
    c. Lack of mineralocorticoid replacement.
    d. Dilutional hyponatremia from the Transurethral Resection of the Prostate (TURP).

48. In a patient who underwent TURP for LUTS what tests are recommended at follow-up visit 4 to 6 weeks after surgery?

    a. Urinalysis.
    b. PSA and IPSS.
    c. IPSS, uroflowmetry and post void residual volume.
    d. Frequency volume chart and uroflowmetry.

49. What is the median decrease in prostate volume after 12 months treatment with 5alpha-reductase inhibitors?

    a. Less than 10%.
    b. About 25%.
    c. About 40%.
    d. Over 50%.

50. The action of Duloxetine in patients with stress urinary incontinence is due to:

    a. Anxiolytic effects.
    b. Antimuscarinic effects.
    c. Relaxing the bladder tone.
    d. Increasing the urethral tone.

SURGERY

162. What is the diameter of a 26 Charrière resectoscope?

    a. 8,00 mm.
    b. 8,67 mm.
    c. 9,67 mm.
    d. 26,00 mm.

163. When performing a radical orchiectomy which nerve is at most risk of damage?

    a. Lateral femoral cutaneous nerve.
    b. Ilioinguinal nerve.
    c. Iliohypogastric nerve.
    d. Femoral nerve.

164. For which procedure do the EAU guidelines recommend antibiotic prophylaxis in all patients?

    a. TURB.
    b. TURP.
    c. Diagnostic cystoscopy.
    d. Ureterorenoscopy for uncomplicated stone treatment.

165. Which is one of the surgical principles highlighted by Robson in 1969 for the radical nephrectomy?

    a. Early ligation of the ureter.
    b. Early ligation of renal artery.
    c. Adrenalectomy is performed only for tumours located at the upper pole.
    d. The template of lymph node dissection is extended from the crus of the diaphragm to the bifurcation of the common iliac artery.

161. Which is NOT a common histological feature of balanitis xerotica obliterans (lichen sclerosus et atrotphicus)?

a. Hyperkeratosis.
b. Band-like chronic inflammatory cell infiltrate.
c. Homogenisation of collagen in the dermis.
d. Hyperplasia of the sebaceous glands.

51. Which patient could be defined as having complicated stress urinary incontinence?

a. All patients younger than 50 years old.
b. All patients older than 80 years old.
c. Patients with recurrent urinary tract infection.
d. Patients with prior surgery, symptomatic prolapse and who are considering further pregnancy.

LITHIASIS/INFECTIONS

52. Which specie most commonly causes urinary schistosomiasis?

    a. Schistosoma haematobium.
    b. Schistosoma japonicum.
    c. Schistosoma mansonii.
    d. Schistosoma vesicae.

53. Primary hyperparathyroidism:

    a. Is more common in male patients.
    b. Is diagnosed with ultrasound of the neck.
    c. Has its peak incidence at about 50 years of age.
    d. Is combined with renal stones in more than 50% of patients.

54. Cystinuria is:

    a. A renal glomerular disease.
    b. A congenital metabolic disease.
    c. Demonstrated by cystine crystals in the urine.
    d. Characterized by decreased excretion of lysine and arginine into the urine.

55. A young woman is diagnosed with acute uncomplicated bacterial cystitis. Which pathogen is considered to be the most likely?

    a. Escherichia coli.
    b. Proteus vulgaris.
    c. Streptococcus faecalis.
    d. Staphylococcus aureus.

56. Candiduria is a common complication of:

    a. Diabetes mellitus.
    b. Renal tuberculosis.
    c. Glomerulonephritis.
    d. Interstitial nephritis.

156. Which treatment is the first choice for nocturnal enuresis in a child?

    a. Alarm systems.
    b. Antispasmodics.
    c. Prostaglandin inhibitors.
    d. Tricycle anti-depressants.

157. A PIC (positioned instillation of contrast) cystography should be performed in the event of:

    a. A child with abnormal renal DMSA scan, normal VCUG and no UTI.
    b. A child with a normal renal DMSA, abnormal VCUG and recurrent UTI.
    c. A child with a normal renal DMSA scan, normal VCUG and recurrent UTI.
    d. A child with an abnormal renal DMSA scan, normal VCUG and recurrent UTI.

158. When does continuous incontinence occur?

    a. Perineal hypospadiasis.
    b. Posterior urethral valves.
    c. Vesico-ureteric reflux in boys.
    d. Extrasphincteric ectopy of ureteral orifice in girls.

159. What is the approximate incidence of a horseshoe kidney?

    a. 1 in 125 persons.
    b. 1 in 400 persons.
    c. 1 in 800 persons.
    d. 1 in 1000 persons.

160. On a maternal ultrasound at the 25th week of gestation a unilateral SFU (Society for Fetal Urology) grade 3 dilatation of the right kidney is seen. The most likely diagnosis will be:

    a. Megaureter.
    b. UPJ obstruction.
    c. Vesicoureteral reflux.
    d. Posterior urethral valves.

151. What is a type I posterior urethral valve?

a. A fold of tissue running between the bladder neck and verumontanum.
b. A membrane of tissue from the verumontanum to the membranous urethra.
c. A diaphragm of tissue with a central lumen at the level of the membranous urethra.
d. A membrane of tissue from the proximal verumontanum dorsally to the bladder neck.

152. What is most commonly affected by a ureteral ectopia in a duplicated system?

a. The ureters of both poles of the kidneys.
b. The ureter of the upper pole of the kidney.
c. The ureter of the lower pole of the kidney.
d. There is no rule in this type of malformation.

153. When does urine production begin in the human fetus?

a. At 2 to 3 weeks.
b. At 4 to 6 weeks.
c. At 10 to 12 weeks.
d. At 14 to 16 weeks.

154. What is the approximate incidence of hypospadias?

a. 1 to 125.
b. 1 to 250.
c. 1 to 500.
d. 1 to 1000.

155. The testicles descend to the level of the internal inguinal ring by which time point during gestation?

a. Sixth week.
b. Third month.
c. Sixth month.
d. Ninth month.

57. Which has been confirmed as complication of ESWL treatment of kidney stones?

a. Urinary tract infection.
b. Induction of diabetes mellitus.
c. Development of hypertension.
d. None of the above mentioned.

58. Ureteral damage associated with URS:

a. Is prevented by using safety wires.
b. Is most common in the upper part of the ureter.
c. Should be checked for following each ureteroscopic procedure.
d. Is prevented by balloon dilatation of the orifice before entering the ureteroscope.

59. In a man with urethritis, which is correct?

a. Mycoplasma hominis is very likely to be the cause of infection.
b. In Europe the incidence of non-specific urethritis (NSU) is similar to gonorrhoeal urethritis.
c. There is no correlation between promiscuity and the frequency of infection with Neisseria gonorrhoeae.
d. There is a correlation between low socio-economic class and the frequency of infection with Chlamydia trachomatis.

60. In which procedure is perioperative antibiotic prophylaxis recommended?

a. TURP.
b. Cystoscopy.
c. Circumcision.
d. Shock WL.

61. Which organisms produce urease?

a. Proteus mirabilis, Klebsiella pneumonia, Pseudomonas aeruginosa.
b. Escherichia coli, Proteus mirabilis, Klebsiella oxytoca, Candida humicola.
c. Enterococcus faecalis, Proteus vulgaris, Providencia stuartii, Escherichia coli.
d. Staphylococcus epidermidis, Klebsiella oxytoca, Proteus vulgaris.

62. Which stones are radiolucent?

a. Uric acid, Amonium urate, Xanthine, 2.8-dihydroxyadenine.
b. Uric acid, Cystine, Ammonium urate Xanthine.
c. Xanthine, Uric acid, Cystine, Apatite.
d. Calcium phosphates, Apatite, Cystine, Uric acid.

63. Which drug is most effective in medical expulsive therapy?

a. Tamsulosin.
b. Furosemide.
c. Solifenacin.
d. Hydrocortisone.

64. The microbial aetiology of epididymitis can usually be determined by examination of a Gram stain. Which is the correct statement?

a. The presence of intracellular Gram-negative diplococci on the smear correlates with infection of N. Gonorrhea.
b. The presence of only white blood cells on a urethral smear indicates the presence of gonorrhoeal urethritis.
c. C.trachomatis is uncommon in patients with epidydimitis.
d. Brucellae spp. are not a bacterial cause of epidymo–orchitis.

PAEDIATRICS/CONGENITAL

147. Cryptorchidism is caused by:

a. Pituary-hypothalamus insufficiency.
b. Anomalies of the elytroperitoneal duct.
c. Endogenous disorders of the testes with decreased sensitivity to hormonal stimulation.
d. All the above are correct.

148. The age and appearance of a child with a neuroblastoma is most frequently as follows:

a. A 3-year old who looks very ill.
b. A 7-year old who looks very ill.
c. A 3-year old who does not look ill.
d. A 7-year old who does not look ill.

149. In a child with a complete renal duplication, the most common situation is:

a. Both ureters merge normally in the bladder.
b. Both ureters end more medially in the bladder.
c. The lower pole ureter ends more medial and the upper pole ureter more lateral in the bladder.
d. The upper pole ureter ends medial and the lower pole ureter more lateral in the bladder.

150. The urachus involutes to become:

a. The appendix testes.
b. The veru montanum.
c. The lateral umbilical folds.
d. The median umbilical ligament.

144. What is the probability of developing muscle invasive bladder cancer in patients with carcinoma in situ of the bladder, which has not responded to intravesical BCG-treatment? About:

a. 25%.
b. 40%.
c. 65%.
d. 90%.

145. What is the recommended adjuvant treatment after TURB and second reTURB in urinary bladder urothelial carcinoma pTaG3?

a. Early radical cystectomy.
b. Intravesical chemotherapy of 1 year.
c. Intravesical application of BCG–induction course (6 x per week).
d. Intravesical application of BCG–induction course and maintenance for 1 year.

146. Active surveillance or radical therapy for low-risk prostate cancer is a matter of balancing the benefits and risks for the patient.
Which statement is correct?

a. The probability of survival benefit is higher for radical therapy.
b. Active surveillance has a higher treatment-related morbidity such as incontinence.
c. The chance of infections related to multiple re-biopsies is higher in radical therapy.
d. With active surveillance disease progression is possible, which gives a small chance to lose the opportunity for cure.

65. Bacterial counts in mid stream urine specimens are clinically relevant if:

a. $\geq 10^5$ CFU/mL of uropathogens in women, or $\geq 10^4$ CFU/mL of uropathogens in men.
b. $\geq 10^4$ CFU/mL of uropathogens in women, or $\geq 10^3$ CFU/mL of uropathogens in men.
c. $\geq 10^4$ CFU/mL of uropathogens in women, or $\geq 10^5$ CFU/mL of uropathogens in men.
d. $\geq 10^5$ CFU/mL of uropathogens in women, or $\geq 10^3$ CFU/mL of uropathogens in men.

66. Which of the following is NOT a complication of epididymo-orchitis?

a. Abscess formation.
b. Testicular infarction.
c. Testicular atrophy.
d. Testicular torsion.

67. A 26-year-old woman in the second trimester of pregnancy has a UTI (urinary tract infection). Which antibiotic can be given safely?

a. Quinolones.
b. Tetracyclines.
c. Cephalosporins.
d. Aminoglycosides.

68. A 37-year-old man presents to the emergency room with severe colicky pain of the left flank. Physical examination reveals dehydration. His vital signs are normal. Plain X-ray shows 3 mm opacity in the bony pelvis, ultrasonography shows moderate dilatation of the left kidney. The best treatment is:

a. ESWL.
b. Ureteroscopy.
c. Ureterolithotomy.
d. Analgesia and rehydration.

69. A common lithogenic factor in Adult Polycystic Kidney Disease (APKD) is:

a. Hyperoxaluria.
b. Hypercalciuria.
c. Low urinary pH.
d. Hyperuricosuria.

70. The risk of a colonic injury during puncturing of the renal collecting system can be reduced by use of:

a. A C-arm.
b. Ultrasound.
c. Retrograde imaging.
d. Digital fluoroscopy.

71. Which well-established hereditary disease provokes recurrent stone formation in the kidney?

a. Hypo-oxaluria.
b. Uricosuria.
c. Phenylketonuria.
d. Renal tubular acidosis.

72. Which drug may be effective in case of candiduria?

a. Ofloxacin.
b. Fluconazole.
c. Ceftriaxone.
d. Trimethoprim.

73. A characteristic of electromagnetic ESWL machines is:

a. No pain.
b. Good efficacy.
c. No cardiac arrhythmias.
d. Poor precision because of focal geometry.

140. What does the term Carcinoma in situ of the bladder mean?

a. An invasive disease.
b. A precursor of urothelial carcinoma.
c. A precursor of invasive bladder cancer.
d. A low-grade non-invasive urothelial carcinoma.

141. Which statement about seminal vesicles (SV) is correct?

a. SV secretion is acidic and contains fructose and antioxidant enzymes.
b. SV secretion inhibits coagulation of the semen with the semenogelin I protein.
c. SV-sparing prostatectomy may have some positive effects on post-op potency.
d. In prostate cancer, PSA, Gleason score and the number of positive biopsy cores have no correlation with the risk of SV involvement.

142. Which statement about imaging in prostate cancer (PC) is NOT correct?

a. Bone scan detects bone deposits from osteoblasts, not cancer cells.
b. 11 choline PET is especially indicated in detecting small < 5 mm lymph node metastases in PC.
c. Whole-body MRI (WBMRI) has a better sensitivity and specificity than bone scintigraphy in detection of bone metastases in PC.
d. The addition of diffusion-weighted imaging (DWI) to WBMRI enables one to study the extra-skeletal involvement, including lymph nodes and other soft-tissue metastases, without requiring intravenous contrast agents.

143. Which statement is correct? In prostate cancer patients:

a. Extended pelvic lymph node dissection in low-risk patients is advised.
b. Limited pelvic lymph node dissection in intermediate-risk patients is advised.
c. Extended pelvic lymph node dissection results in improved staging and potentially in reduced risk of disease recurrence and improved survival.
d. MRI demonstrates a lower accuracy for the assessment of local tumour staging in high-risk patients when compared to other diagnostic modalities.

136. What is the 5-year cancer-specific survival rate of pT3 upper urinary tract urothelial cell carcinoma?

a. < 50%.
b. 60%.
c. 70%.
d. 80%.

137. A 30-year-old man presents with right sided testicle pain. His urological history is negative. He hasn't had fever and he could palpate a hard nodule in this testis. Ultrasound shows a 12 mm inhomogeneous hypoechoic testicular lesion. AFP and HCG levels are normal. What do you advise?

a. Right sided inguinal orchidectomy as soon as possible.
b. Trans scrotal FNAB to confirm the diagnosis as the markers are negative.
c. Resection of the suspicious area, as the patient is young, may wish to preserve fertility.
d. Long term antibiotic administration, as the pain and the normal marker levels are not typical for testicular malignancy.

138. What is the best tool to diagnose testicular intraepithelial neoplasia?

a. CT.
b. MRI.
c. Biopsy.
d. Ultrasound.

139. What is the annual tumour growth in surveillance studies for small renal masses?

a. 0.3 cm/year.
b. 1.5 cm/year.
c. 2 cm/year.
d. 4 cm/year.

74. Which type of the Human Papilloma Virus is most frequent in penile cancer?

a. HPV-11.
b. HPV-16.
c. HPV-18.
d. HPV 21.

75. In which procedure is perioperative antibiotic prophylaxis mandatory?

a. Orchidopexy.
b. Laparoscopic nephrectomy.
c. Urodynamic study.
d. Percutaneous nephrolithotomy.

76. In what type of stones is the prevention protocol similar to uric acid stones?

a. Cystine stones.
b. Xanthine stones.
c. Ammonium urate stones.
d. Stones resulting from urease-producing bacteria.

77. When treating cystine nephrolithiasis with percutaneous irrigation chemolysis what is the proper approach?

a. Two nephrostomy tubes should be placed.
b. One nephrostomy tube and one ureteric catheter should be installed.
c. One nephrostomy tube should be placed.
d. One DJ and one bladder catheter should be inserted.

78. A 46-year-old man with spinal cord injury has an indwelling catheter. Which condition indicates a catheter-associated urinary tract infection which requires treatment with antibiotics in this patient?

a. Pyuria.
b. Presence of cloudy urine.
c. Presence of malodorous urine.
d. Pyuria and clinical symptoms of urinary tract infection.

79. The main indication for Percutaneous Nephrolithotripsy (PNL) are stones:

a. >1cm.
b. <2cm.
c. >2cm.
d. <3cm.

80. Which statement is correct?

a. Alpha-blockers can reduce stent related symptoms.
b. In case of infectious stones antibiotics need not be administered prior to ESWL.
c. Routine stenting is recommended prior to ESWL for the treatment of ureteral stones.
d. In uncomplicated ureteroscopy without the use of an access sheath a stent must be inserted.

131. PSA as an indicator for prostatic biopsy:

a. Is best used as PSA velocity.
b. Has no recognized normal value.
c. Has a recognized normal value of 4.0 ng/ml.
d. Has a continuous direct relation to the detection of prostate cancer.

132. Hexaminolaevulinate is a:

a. Photo-activatable chemotherapeutic protein.
b. Fluorescent degradation product of heme oxygenase.
c. Precursor of fluorescent Porphyrin in the biosynthesis of heme.
d. Amino acid found in abundance in bladder cancer specific proteins.

133. The REDUCE trial major objective was to evaluate the effect of dutasteride in reducing the risk of:

a. LUTS in patients with large prostates.
b. Cancer in men with low-risk of developing prostate cancer.
c. Cancer in men with high-risk of developing prostate cancer.
d. Inflammation induced prostate cancer in men with a previous negative biopsy.

134. If a cT1a renal cell cancer is found:

a. A radical nephrectomy is indicated.
b. A partial nephrectomy is the treatment of choice.
c. A transperitoneal surgical approach is mandatory.
d. Surgery should be combined with regional lymphadenectomy.

135. What is the greatest risk factor for testicular cancer?

a. Testicular trauma.
b. Decreased fertility.
c. Testicular infection.
d. Testicular microcalcification.

127. High expression of Carbonic anhydrase IX (CAIX) in RCC:

a. Is being prospectively evaluated in patients with mRCC.
b. Is associated with response to treatment with IFN-alpha.
c. Is a prospectively validated molecular marker for clear cell RCC.
d. Is associated with response to treatment with IL-2 in all types of RCC.

128. Regarding staging problems with core needle biopsies, which statement about the tumour location in the prostate is NOT correct?

a. The tumour location is mostly anterior and less frequently posterior (near the rectum) in the prostate.
b. The tumour foci distribution in the prostate has some biological and prognostic significance but also affects prostate cancer staging.
c. The topographical distribution of tumours may influence the detection rate and/or volume estimates of the cancer.
d. Tumours with a smaller volume are preferably located in the apical portion of the prostate and as volume increases, the base portions are also affected.

129. The percentage of patients with newly diagnosed renal cell carcinoma that has renal vein or inferior vena cava involvement is approximately:

a. 1%.
b. 5 - 10%.
c. 15 - 20%.
d. More than 20%.

130. Centrally located renal cell carcinomas:

a. Can only be treated by radical nephrectomy because of oncological reasons.
b. Should be excised by nephron-sparing surgery when they are < 4 cm in diameter.
c. In imperative situations can be treated with nephrectomy, work bench surgery and auto transplantation.
d. Should only be excised by nephron-sparing surgery when there is no evidence of a tumour thrombus.

MISCELLANEOUS

81. Which statement is NOT correct?

a. Ciprofloxacin can be used safely in combination with anti-inflammatory drugs in cases of prostatitis.
b. Ciprofloxacin can cause tendinitis of the Achilles tendon many months after stopping taking it.
c. Tendinitis is more common in patients taking ciprofloxacin if they have had a kidney transplant.
d. Ciprofloxacin suppresses the growth of mycobacteria.

82. The advantage of TMA (Tissue micro arrays) is:

a. It is an inexpensive diagnostic tool.
b. Genes are studied with this method.
c. The investigations are representative for the tumour.
d. More investigations can be performed on one tissue sample at the same time.

83. In laser treatment, the power density is defined as:

a. The power emitted at the laser head.
b. Power divided by area over which it is delivered.
c. Power multiplied by area over which it is delivered.
d. Power substracted from the area over which it is delivered.

84. Which organ is least accessible for an ultrasound investigation?

a. Testis.
b. Ureter.
c. Kidney.
d. Urinary bladder.

85. What does the Clavien-Dindo system classify?

a. Renal injuries.
b. Severity of symptoms of urinary incontinence.
c. Complications related to surgical interventions.
d. Urinary symptoms after pelvic external beam radiotherapy or brachytherapy.

86. What is the best available material to cover the urethral gap for strictures shorter than 4 cm in length?

a. Mesh graft.
b. Scrotal skin.
c. Preputial flap.
d. Buccal mucosa.

87. What are the usual causes of ileal conduit stomal bleeding, encrustation and formation of granulation tissue?

a. E. coli infection.
b. Allergy to appliance material.
c. Chronic exposure to acid urine.
d. Chronic exposure to alkaline urine.

88. RANK is expressed on:

a. Osteoblasts only.
b. Osteoclast precursor cells only.
c. Osteoblasts and activated osteoclasts.
d. Osteoclast precursor cells and activated osteoclasts.

89. Which antibiotic is penicillinase-resistant?

a. Ciprofloxacin.
b. Nitrofurantoin.
c. Amoxicillin and clavulanic acid.
d. Trimethoprim-sulfamethoxazole.

122. Both steroidal and pure anti-androgens in prostate cancer:

a. Preserve potency when used as monotherapy.
b. Cause a significant rise in serum testosterone level.
c. Interact exclusively with the nuclear-bound androgen receptor.
d. Can be used to prevent flare reaction associated with LH-RH agonist therapy.

123. Ultrasound of a renal tumour is able to differentiate between:

a. Sarcoma and adenocarcinoma.
b. Oncocytoma and adenocarcinoma.
c. Angiomyolipoma and adenocarcinoma.
d. An infiltrative urothelial epithelioma and adenocarcinoma.

124. The standard treatment for high grade upper tract urothelial tumours is:

a. Segmental resection.
b. Percutaneous resection.
c. Ureteroscopic fulguration.
d. Radical nephro-ureterectomy.

125. Random biopsies in cases of non-muscle invasive bladder cancer:

a. Are standard in a case of first tumour resection.
b. Should be performed in a case of positive cytology.
c. Should only be performed from suspicious areas in the bladder.
d. Are obsolete, since targeted biopsies should be performed with photodynamic guidance.

126. What is the recommended protocol for a patient with metastatic urothelial carcinoma?

a. Surgical metastasectomy.
b. Gemcitabine/cisplatine chemotherapy schedule.
c. Palliative irradiation of painful bone metastases.
d. Ethoposide/bleomycin chemotherapy schedule.

118. For high-risk prostate cancer patients, long-term androgen deprivation therapy prior to and during radiotherapy:

a. Is recommended because it results in increased overall survival.
b. Should be used in a subset of patients with distant metastases and WHO status 0-1.
c. Has no significant impact on overall survival or on the time to biochemical progression.
d. Should be restricted to patients under 60 with radiologically confirmed nodal involvement.

119. In penile carcinoma categories Tis, Ta, and T1a are superficial lesions that can be treated with the following penis-sparing techniques with the exception of:

a. Local excision with (or without) circumcision.
b. Mohs' micrographic surgery (for verrucous carcinoma).
c. Laser therapy with CO2 laser (peniscopically controlled) or neodymium:yttrium-aluminium-garnet(Nd:YAG) laser.
d. Neoadjuvant chemotherapy (vinblastine, bleomycin, and methotrexate (VBM)) followed by CO2 laser excision and spontaneous glans re-epithelialisation.

120. Lynch syndrome: This is Hereditary nonpolyposis colon cancer associated with an increased risk of an urological cancer; which?

a. Penile cancer.
b. Testicular cancer.
c. Urothelial cancer.
d. Seminal vesical cancer.

121. Renal oncocytoma is histologically characterised by:

a. Basophilic cells.
b. Small acidophilic cells.
c. Large inflammatory cells.
d. Granular eosinophilic cells.

90

ERRATA

EBU IN-SERVICE ASSESSMENT BOOKLET 2015-2016

QUESTION 2: CORRECT ANSWER = C

QUESTION 89: INVALID

dneys.
>5 rbc/hpf.
: need investigation.
er and upper urinary tracts.

:s.
es.
nd resorbed in the proximal

and partially resorbed in the

ONCOLOGY

92. With respect to urachal neoplasms, stage 1 disease:

    a. Invades the peritoneum.
    b. Invades the bladder wall.
    c. Invades the abdominal wall.
    d. Is limited to the urachal epithelium.

93. Which investigation has the highest sensitivity to detect a localized prostate cancer?

    a. CT-scan.
    b. Transrectal ultrasound.
    c. Endorectal MRI.
    d. PET.

94. What is correct about the Veil of Aphrodite technique in radical prostatectomy?

    a. It does not result in enhanced nerve sparing.
    b. It is designed to preserve Denonvilliers' fascia.
    c. It is a safe procedure in properly selected patients.
    d. A standard technique had similar mean margin clearances.

95. Which are criteria for performing an orthotopic bladder substitution in patients undergoing radical cystectomy for transitional cell carcinoma of the bladder?

    a. No severe stress incontinence prior to cystectomy.
    b. Negative urethral margin at frozen section performed during surgery.
    c. Motivation of the patient to perform intermittent catheterization because of the incidence of large residual urine volumes in 10-15% of the patients postoperatively.
    d. All of the above.

113. Most frequent complications of (laparoscopic) partial nephrectomy is/are:

    a. Ileus.
    b. Deep venous thrombosis.
    c. Bleeding and urinary leakage.
    d. Damage to the surrounding organs.

114. Urinary cytology:

    a. Has a high sensitivity (>70%).
    b. Is advisable before the first treatment of a bladder tumour.
    c. Is inferior in sensitivity and specificity compared to NMP22.
    d. Should not be performed within 6 weeks of intravesical chemotherapy.

115. The relative risk of developing cardiovascular diseases in patients after chemotherapy of testicular cancer compared to the normal population has been shown to be:

    a. 2,5 times higher.
    b. 5 times higher.
    c. 7 times higher.
    d. 10 times higher.

116. Local failure rate after radiotherapy of the primary tumour of the penis compared with partial penectomy is:

    a. Lower.
    b. Higher.
    c. Equal.
    d. Uncertain.

117. In the 2009 TNM classification for RCC, a tumour extends into the vena cava above the diaphragm in stage:

    a. T3a.
    b. T3b.
    c. T3c.
    d. T4.

109. For the result of the PCA3 test which substance has to be evaluated?

a. PCA3-DNA.
b. PCA3-mRNA.
c. PCA3-mRNA and PSA-DNA.
d. PCA3-mRNA and PSA-mRNA.

110. What can help reduce potential BCG-associated adverse events?

a. Instilling BCG 3-4 days following a TURBT.
b. Delaying BCG until gross hematuria has resolved.
c. Deferring BCG for 3-4 days if catheterization is traumatic.
d. Delaying initiation of anti-tuberculous and quinolones antibiotics until a systemic BCG reaction is confirmed.

111. Which blood test is essential before orchidectomy for testicular tumour?

a. Full blood count.
b. Liver function tests.
c. Urea and electrolytes.
d. Alpha Fetoprotein (AFP) and Beta-HCG.

112. What are the limits of standard pelvic lymphadenectomy in prostate cancer?

a. Laterally to the sacral fissure, superiorly to the internal inguinal ring, posteriorly and inferiorly to the obturator nerve and distally to the pelvis floor.
b. Laterally to the sacral fissure, superiorly to the internal inguinal ring, posteriorly and inferiorly to the obturator nerve and distally to the circumflex iliac vein.
c. Laterally to the sacral fissure, superiorly to the common iliac artery bifurcation, posteriorly and inferiorly to the obturator nerve and distally to the circumflex iliac vein.
d. Laterally to the genito-femoral nerve, superiorly to the common iliac artery bifurcation, posteriorly and inferiorly to the obturator nerve and distally to the circumflex iliac vein.

96. In radical nephrectomy for RCC, adrenalectomy is mandatory:

a. Never.
b. In all cases.
c. In case of a large upper pole tumour.
d. In case of a small lower pole tumour.

97. Cyproterone acetate:

a. Is a non-steroidal anti-androgen.
b. Does not produce gynaecomastia and impotence.
c. Acts centrally to produce a lasting drop in LHRH output from the hypothalamus.
d. Competitively inhibits testosterone binding to the nuclear androgen receptor of the prostatic cancer cell.

98. Which statement is INCORRECT? Limitations for the use of a single PSA value as a marker for early detection of prostate cancer are:

a. The PSA value shows natural fluctuations.
b. The PSA value is influenced by inflammation of the prostate.
c. The PSA value is influenced by the amount of benign prostate hyperplasia.
d. The PSA value is influenced by other conditions like kidney stone disease.

99. In the PSA range between 4 and 10 ng/mL the use of free/total PSA ratio can reduce unnecessary biopsies by:

a. < 5%.
b. 10-20%.
c. 30-40%.
d. 50-60%.

100. TGF-alpha promotes angiogenesis by enhancing:

a. EGFR-mediated signalling.
b. VEGFR-mediated signalling.
c. mTOR-mediated signalling.
d. PDGFR-mediated signalling.

101. The most important variable for successful cryosurgery for prostate cancer is:

a. Freezing velocity.
b. Temperature reached.
c. Two cycles of freeze-thaw.
d. Size of the ice ball at maximum freezing.

102. Laser treatment of TCC of the bladder:

a. Is accompanied by minimal bleeding.
b. Is very effective for locally invasive tumours.
c. Is accompanied by prolonged catheter drainage.
d. Is more effective than traditional electroresection.

103. Regarding targeted therapy of metastatic renal cell cancer which statement is correct?

a. Sunitinib is an mTOR inhibitor.
b. Sorafenib is only active in renal cell cancer.
c. Sorafenib, Sunitinib, Temsirolimus and Bevacizumab are approved by FDA and EMEA for renal cell cancer.
d. Targeted therapy is only active in clear cell renal cell cancer.

104. The single most important reason for performing partial nephrectomy for a small (4 cm) renal mass is:

a. Long-term functional outcomes are superior.
b. Cancer control is comparable to radical nephrectomy.
c. Patients feel happier that they have more residual nephrons.
d. Nephron sparing surgery allows superior molecular and cytogenetic profiling of the renal tumour.

105. Which statement regarding LHRH for patients with Biochemical Recurrence for prostate cancer is true?

a. No PSA level has been defined that signals the need for LHRH.
b. LHRH should be combined with an antiandrogen for at least 6 months.
c. Randomized clinical trials have shown that LHRH decreases prostate cancer specific mortality.
d. LHRH should be administered immediately to decrease the incidence of clinical progression.

106. During cystectomy for invasive bladder cancer, the uterus can be spared if:

a. The ovaries are normal appearing.
b. The pelvic nodes appear grossly negative.
c. There is no invasive cancer at the dome of the bladder.
d. There is no invasive cancer in the area of the trigone, or dorsal or lateral side walls of the bladder.

107. Where should the biopsies be directed in order to improve the prostate cancer detection rate?

a. To the midline.
b. To the transition zone.
c. To the peripheral zone.
d. The location of the biopsies does not influence the cancer detection.

108. Hexaminolaevulinate is a:

a. Photo-activatable chemotherapeutic protein.
b. Fluorescent degradation product of heme oxygenase.
c. Precursor of fluorescent Porphyrin in the biosynthesis of heme.
d. Amino acid found in abundance in bladder cancer specific proteins.

CORRECT ANSWERS

1.	a.	41.	d.	81.	d.	121.	b.	161.	a.
2.	d.	42.	d.	82.	b.	122.	b.	162.	a.
3.	d.	43.	a.	83.	c.	123.	a.	163.	d.
4.	b.	44.	b.	84.	a.	124.	c.	164.	b.
5.	b.	45.	c.	85.	c.	125.	b.	165.	a.
6.	c.	46.	b.	86.	b.	126.	b.	166.	d.
7.	a.	47.	d.	87.	d.	127.	a.	167.	d.
8.	b.	48.	b.	88.	c.	128.	b.	168.	b.
9.	a.	49.	a.	89.	b.	129.	d.	169.	c.
10.	a.	50.	d.	90.	d.	130.	d.	170.	a.
11.	d.	51.	a.	91.	b.	131.	c.	171.	c.
12.	c.	52.	d.	92.	a.	132.	c.	172.	d.
13.	d.	53.	d.	93.	a.	133.	b.	173.	d.
14.	c.	54.	b.	94.	d.	134.	b.	174.	b.
15.	c.	55.	c.	95.	c.	135.	c.	175.	a.
16.	b.	56.	a.	96.	d.	136.	c.	176.	c.
17.	c.	57.	a.	97.	c.	137.	a.	177.	b.
18.	d.	58.	c.	98.	c.	138.	c.	178.	a.
19.	d.	59.	c.	99.	a.	139.	c.	179.	c.
20.	b.	60.	c.	100.	a.	140.	d.	180.	b.
21.	a.	61.	a.	101.	d.	141.	c.	181.	d.
22.	d.	62.	d.	102.	a.	142.	c.	182.	b.
23.	b.	63.	a.	103.	b.	143.	d.	183.	c.
24.	a.	64.	c.	104.	d.	144.	c.	184.	b.
25.	a.	65.	a.	105.	a.	145.	d.	185.	d.
26.	b.	66.	b.	106.	d.	146.	b.	186.	a.
27.	c.	67.	c.	107.	b.	147.	a.	187.	a.
28.	b.	68.	a.	108.	d.	148.	c.	188.	d.
29.	c.	69.	c.	109.	c.	149.	c.	189.	b.
30.	d.	70.	a.	110.	b.	150.	b.		
31.	b.	71.	c.	111.	b.	151.	d.		
32.	d.	72.	a.	112.	b.	152.	d.		
33.	d.	73.	d.	113.	c.	153.	c.		
34.	b.	74.	a.	114.	c.	154.	c.		
35.	d.	75.	b.	115.	c.	155.	c.		
36.	a.	76.	a.	116.	c.	156.	a.		
37.	d.	77.	d.	117.	d.	157.	a.		
38.	c.	78.	d.	118.	d.	158.	d.		
39.	c.	79.	c.	119.	a.	159.	b.		
40.	c.	80.	a.	120.	c.	160.	a.		

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INTRODUCTION

This publication contains the MCQs of the In-Service Assessments organised by the EBU Examination Committee in 2011 and 2012.

Participation in the EBU In-Service Assessment is open to all residents and urologists. It is meant to provide the participants information regarding their present state of knowledge. Especially for those still in training it may serve as a continuous monitoring system. As they progress in their training, their results should improve over the years. It also provides insight in areas which need additional study and reading.

The content of the assessment covers both clinical and basic sciences. The contents of the MCQs do not only reflect current management of specific pathologies, but focus on issues of basic science as well. The purpose is to stimulate participants to study clinical urology and to acquire some insight in the basic research that will form the basis of urological practice in the future.

Many of the MCQs are rather specific: they have been included in the EBU In-Service Assessment but are in general not suitable for the official EBU Examination in Urology (FEBU). The assessment and the examination can therefore not be compared. Questions included in the EBU Examination in Urology are more general in nature and test knowledge and skills which all European urologists should have.

Please be aware that if you are reading a booklet that is not current, there may be answers that were correct when the questions were written. Medical knowledge may have changed and some of the answers may no longer be accurate.

For more information about the annual In-Service Assessment and other activities visit the EBU website at www.ebu.com.

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189. What are the most important disadvantages of laparo-endoscopic single site surgery (LESS)?

a. Higher injury rate.
b. Lack of triangulation.
c. An additional suture is required for specimen removal.
d. Herniation rate is the same as long term complication.

ONCO

1. Proposed mechanisms to link obesity and prostate cancer include all of the following except:

a. Lower insulin levels.
b. Excessive caloric intake.
c. Higher oestrogen levels.
d. Lower testosterone levels.

2. The sensitivity and specificity of PSA, DRE and TRUS as screening tests for early detection of the prostate cancer are clearly known.
Which of the following is correct?

a. This statement is correct.
b. This is only true for PSA.
c. This is only true for the combination of PSA and DRE.
d. This is incorrect because the true incidence of prostate cancer is unknown.

3. Nomograms are commonly used for preoperative risk assessment be fore nerve-sparing radical prostatectomy.
Which of the following is not a typical parameter analyzed for stage estimation?

a. PSA.
b. Clinical stage.
c. Gleason score.
d. Prostate volume.

4. Which form of treatment for metastatic prostate cancer is least likely to cause osteoporosis?

a. LHRH antagonist.
b. Parenteral estrogens.
c. Estrogenic anti-androgens.
d. Non-estrogenic anti-androgen.

5. The aromatase enzyme converts:

a. Oestrogens to androgens.
b. Androgens to oestrogens.
c. Glucocorticoids to progestins.
d. 17 - oxo to 17 - hydroxysteroids.

6. In a 67 year old asymptomatic man with a normal digital rectal examination and a serum prostate specific antigen of 6.8 ng/mL, the probability of prostate cancer diagnosis is approximately:

a. 10%.
b. 15%.
c. 25%.
d. 50%.

7. Patients receiving long-term hormone therapy are at an increased risk of acute and chronic side-effects.
Which of the following effects is not reported as a side-effect?

a. Decrease in serum cholesterol.
b. Hot flushes.
c. Erectile dysfunction.
d. Metabolic syndrome.

8. TUR syndrome is characterised by:

a. Hyperkalemia.
b. Hyponatremia.
c. Metabolic acidosis.
d. Hypophosphatemia.

9. What is the best therapy for biochemical progression, 3 years after radical prostatectomy?

a. Radiotherapy.
b. Chemotherapy.
c. HIFU.
d. Castration.

SURG

185. What is the difference between transobturator and retropubic routes for urinary stress incontinence treatment?

a. Cure rates.
b. Operating time.
c. Rate of morbidity.
d. Post-operative pain.

186. The light of all the following lasers van be transmitted through optical fibres, except:

a. Co2.
b. Argon.
c. Ho : YAG.
d. KTP-532.

187. Which of the following lasers has not been used for lithotripsy?

a. Diode.
b. Ho : YAG.
c. Pulsed-dye.
d. Alexandrite.

188. Operation time and blood loss in nephro-ureterectomy:

a. Are similar in open and laparoscopic series.
b. There is a longer operation-time and more blood loss in open surgery.
c. There is a longer operation-time and more blood loss in laparoscopic surgery.
d. There is a trend towards longer operation-time but decreased blood loss in laparoscopic surgery.

182. The main penile artery originates from the:

a. External pudendal.
b. Internal pudendal.
c. Internal haemorrhoidal.
d. Inferior vesical.

183. Within the normal prostate, which of the following cells are most androgen-dependent?

a. Basal cells.
b. Endothelial cells.
c. Glandular epithelial cells.
d. Stem cells within the basal cell compartment.

184. Colles' fascia is continuous with:

a. Buck's fascia.
b. Scarpa's fascia.
c. Transversalis fascia.
d. Denonvilliers fascia.

10. The most frequently associated complication of extended pelvic lymphadenectomy is:

a. Lymphocele.
b. Ureteral lesion.
c. Deep venous thrombosis.
d. Injury to the obturator nerve.

11. What is the effect of BCG instillations in patients with non-muscle invasive bladder cancer?

a. Reducing the recurrence rate.
b. No effect on the recurrence rate.
c. Reducing recurrence rate and prevention / delay of progression.
d. Reducing recurrence, prevention / delay of progression and improvement of survival.

12. Which of the following options is the best indication for radical cystectomy?

a. A single pTaG2 tumour.
b. The first diagnosis of CIS.
c. Muscle-invasive bladder cancer.
d. Distant bone and liver metastases.

13. What clinical factor has prognostic value for the risk of progression in patients with non-muscle invasive bladder cancer?

a. Size of the tumour.
b. Number of tumours.
c. Prior recurrence rate.
d. Tumour status after 3 months.

14. The percentage of patients with CIS of the bladder, who will respond to intravesical BCG instillations, is:

a. < 20%.
b. 30 - 40%.
c. 50 - 70%.
d. > 90%.

15. Which occupation has an increased risk of developing bladder cancer?

a. Coalminers.
b. Bricklayers.
c. Textile workers.
d. Steel workers.

16. A combined EORTC/MRC meta-analysis investigating intravesical chemotherapy agents in non-muscle invasive bladder cancer has shown that:

a. Mytomycin C is most effective intravesical agent.
b. All chemotherapeutic agents have similar efficacy.
c. Epirubicin is the most effective intravesical agent.
d. Mitoxantrone is the most effective agent.

17. Current research on molecular prognostic factors for bladder carcinoma suggests the most predictive combination is:

a. p53 and VEGF.
b. FGFR3, and HER2.
c. p53, pRb and p21.
d. NMP22 and VEGF.

18. Which statement concerning laparoscopic radical nephrectomy (LRN) is incorrect:

a. It reduces the postoperative pain and the hospital stay compared to open surgery.
b. It needs the same operative time as in the open procedure.
c. There is less blood loss compared to open surgery.
d. It has higher rates of tumour recurrence and cancer control when compared to open radical nephrectomy.

19. Which is the standard treatment for transitional cell carcinoma of the renal pelvis?

a. Laparoscopic nephrectomy.
b. Percutaneous resection.
c. Nephrectomy + radiotherapy.
d. Nephro-ureterectomy including the ureteric orifice.

181. For the evaluation of a patient with a blunt abdominal trauma and macroscopic hematuria the gold standard to detect renal injuries is:

a. IVU.
b. MRI.
c. Ultra sound study.
d. CT scan with contrast.

176. The best way to evaluate a "difficult" bulbar urethral stricture is by:

a. Antegrade urethrography.
b. Retrograde urethrography.
c. Antegrade and retrograde urethrography.
d. Antegrade and retrograde urethrography and urethrocystoscopy.

177. How often is it recommended that a short urethral stricture (less than 1 cm) ß in a healthy man should be treated by internal urethrotomy?

a. Only once.
b. Two times maximum.
c. Three times maximum.
d. As many times as is needed.

178. A 22 year old man has suffered a straddle injury. The urethrogram shows a partial urethral lesion. How should he be managed?

a. Put a suprapubic catheter into the bladder and wait 3 weeks.
b. Perform immediate suprapubic exploration with urethral repair.
c. Perform a urethraplasty between 7-21 days following the injury.
d. Perform immediate urethral repair through a perineal approach.

179. A 56 year old man is admitted following an abdominal gunshot injury. Despite resuscitation he remains hypotensive. The CT shows a shattered left kidney. The management should be:

a. Embolisation.
b. Surgical repair.
c. Immediate exploration and nephrectomy.
d. Continue resuscitation and conservative management.

180. Ureteral injuries:

a. Need immediate surgical exploration.
b. Are iatrogenic in the majority of cases.
c. Are mainly caused by gynaecological surgeons.
d. Can usually be managed by percutaneous drainage.

20. Mutation of the VHL gene leads to accumulation of HIF1-alpha, resulting in:

a. Activation of mTOR.
b. Overexpression of VEGF and PDGF.
c. Inactivation of Raf.
d. Downregulation of VEGFR.

21. Carbonic anhydrase IX (CAIX):

a. Is overexpressed in clear cell RCC.
b. Is over expressed in papillary RCC.
c. Has been found to be a marker of prognosis for targeted therapy.
d. Is an intracellular enzyme expressed in most normal tissues.

22. What are the most common adverse events of sunitinib?

a. Hand and foot syndrome and peripheral oedema.
b. Diarrhoea and hand and foot syndrome.
c. Fatigue and peripheral oedema.
d. Diarrhoea and fatigue.

23. Which statement is correct?

a. Elevated levels of AFP and hCG are specific for testicular cancer.
b. Large-volume testicular cancer most commonly induces higher levels of LDH isoenzyme 1.
c. Amplification of the HST-1 proto-oncogene has been reported to correlate with low-stage testicular cancer.
d. Elevation of hCG worsens the prognosis of seminoma.

24. A 30 year old man with a recent history of retroperitoneal lymph node dissection for a metastatic germ cell tumour presents with secondary infertility and reports that ejaculation is 'dry'. Absence of ejaculate in this situation is most likely:

a. Due to anejaculation.
b. Due to retrograde ejaculation.
c. Due to testicular malfunction.
d. Caused by the effects of previous chemotherapy.

25. What is not recommended as first line treatment of advanced prostate cancer?:

a. Oestrogens.
b. Orchidectomy.
c. LHRH agonists.
d. Steroidal anti-androgens.

26. In open retropubic radical prostatectomy for localized prostate cancer, preservation of the bladder neck:

a. Avoids ureteral damage.
b. May improve continence.
c. Compromises oncological control.
d. Can preserve antegrade ejaculation.

27. The main involved lymph nodes in testicular cancer are located in the:

a. Inguinal area.
b. Common iliac area.
c. Para-aortic at level renal artery.
d. External iliac area below the vein.

28. External beam radiation therapy should be performed for high risk prostate cancer patients in combination with:

a. Adjuvant androgen deprivation therapy.
b. Combined and adjuvant androgen deprivation therapy.
c. Neo-adjuvant androgen deprivation therapy for 3 months.
d. No additional benefit demonstrated for combination treatment.

29. Which patient with one of the following conditions runs the greatest risk of developing a renal cell tumour?

a. Horseshoe kidney.
b. Tuberous sclerosis.
c. Von Hippel-Lindau disease.
d. Adult type of polycystic kidneys.

TRAU

172. A middle aged female presents with macroscopic haematuria after falling off a horse. She has tender swelling in the left flank but no symptoms of shock. The next step should be:

a. Ultrasonography.
b. Unenhanced CT-scan.
c. Clinical observation.
d. Computer tomography with contrast.

173. A 53 year old lady presents with fever (38.7°C) and right loin pain two days following a simple abdominal hysterectomy for uterine fibroids. What is the likely diagnosis?

a. Right ureteral stone.
b. Right kidney trauma.
c. Acute pyelonephritis.
d. Iatrogenic injury of right ureter.

174. An extraperitoneal bladder rupture is best diagnosed by:

a. Cystoscopy.
b. A cystogram.
c. Ultrasound of the bladder.
d. Unenhanced CT scan of the abdomen.

175. An injury to the penis during sexual intercourse is not compatible with a penile fracture, if it is associated with:

a. A sustained erection.
b. Blood at the urethral meatus.
c. An audible crack from the penis.
d. Sudden onset bruising of the penis.

169. Resistance Index is defined as:

a. (peak systolic velocity - lowest diastolic velocity) / mean velocity.
b. (peak systolic velocity - lowest diastolic velocity) / mean systolic velocity.
c. (peak systolic velocity - lowest diastolic velocity) / peak systolic velocity.
d. (peak systolic velocity - lowest diastolic velocity) / lowest diastolic velocity.

170. Approximately what percentage of hypertensive patients have renovascular hypertension:

a. <5%.
b. 10%.
c. 15%.
d. 25%.

171. Delayed graft function due to acute tubular necrosis following renal cadaver donor transplantation is seen in about:

a. 1% of all transplants.
b. 5% of all transplants.
c. 30% of all transplants.
d. 50% of all transplants.

30. Active surveillance in prostate cancer:

a. Uses a uniform, standardized follow-up protocol.
b. Should be restricted to patients with unilateral disease.
c. Is indicated in old patients (>75 years) with severe co-morbidity.
d. Is indicated in patients with ≤2 biopsies involved, ≤50% cancer per biopsy, T1c/cT2a.

31. A low-risk prostate cancer patient according to d'Amico is defined by:

a. PSA ≤7 ng/mL, biopsy Gleason ≤6 and T1c or cT2a.
b. PSA ≤10 ng/mL, biopsy Gleason ≤6 and T1c or cT2a.
c. PSA ≤10 ng/mL, biopsy Gleason ≤7 and T1c or cT2a.
d. PSA ≤10 ng/mL, biopsy Gleason ≤6 and T1c or cT2b.

32. An improvement in imaging of the prostate has been shown with:

a. Elastography.
b. Histoscanning.
c. Shear wave imaging.
d. Contrast enhanced ultrasound.

33. Negative effect of screening for prostate cancer is/are:

a. Overdiagnosis.
b. Long lead time.
c. Patient anxiety.
d. All of the above.

34. In 1997 the ASTRO definition was published for a biochemical relapse after radiotherapy. In 2006 a new definition was established, the Phoenix-definition. Which statement is true?

a. The ASTRO definition was also intended for follow-up after radical prostatectomy.
b. A PSA rise of 2 ng/mL above the nadir after radiotherapy is a biochemical relapse according to the Phoenix definition.
c. The Phoenix definition does not apply when performed after a short period of hormonal therapy after radiotherapy.
d. The advantage of the ASTRO definition is that the time of biochemical relapse is between the nadir and the first measured rise of PSA (back dating).

35. Axitinib, the small molecule inhibitor of the tyrosine kinase portion of VEGF and platelet derived growth factor receptor has demonstrated activity with a response rate approaching 50% in:

a. T3b tumours.
b. T2 tumours with associated lymphadenopathy.
c. Cytokine sensitive metastatic renal cell carcinoma.
d. Cytokine refractory metastatic renal cell carcinomas.

36. Which statement is incorrect?
A PSA velocity of >2 ng/mL/year prior to local treatment of prostate cancer is significantly correlated with:

a. A higher risk of local recurrence.
b. A higher risk of dying from any cause.
c. A shorter time to biochemical recurrence.
d. A higher risk of dying from prostate cancer.

37. Which is the standard treatment of urothelial carcinoma of the renal pelvis?

a. Percutaneous resection.
b. Laparoscopic nephrectomy.
c. Nephrectomy + radiotherapy.
d. Nephro-ureterectomy including the ureteric orifice.

165. What is the main cause of arterial stricture in kidney transplantation?

a. Arterial kinking.
b. A defective anastomosis.
c. Immunosuppresive therapy.
d. The small diameter of the renal artery.

166. Which statement regarding glomerulonephritis (GN) is correct?

a. In focal GN only one kidney is affected.
b. In segmental GN only the apical renal segment is affected.
c. The GN associated with lupus erythematosus is an anti-basal membrane disease.
d. In exudative-proliferative GN of the poststreptococcus-type there is typically a proliferation of endothelial- and mesangial cells as well as an accumulation of neutrophilic granulocytes.

167. In the pre-operative preparation for renal transplantation of patients:

a. Timing of pre-operative dialysis is not important.
b. All transplant patients should have haemodialysis lines inserted.
c. Peripheral vascular access can be situated anywhere on the limbs.
d. Chronic renal disease patients have a high incidence of cardiovascular disease.

168. Collins solution used as renal perfusate prior to transplantation has the following features. It is a:

a. Cryopreservation solution.
b. Crystalloid solution with intracellular features.
c. Crystalloid solution with extracellular features.
d. Crystalloid solution with potent inhibitors of the formation of oxygen free-radicals.

160. The nephritic syndrome is characteristic for which of the following diseases?

a. Goodpasture-syndrome.
b. Wegener granulomatosis.
c. Epi-/peri-/membranous glomerulonephritis.
d. Acute post-streptococcal-glomerulonephritis.

161. Which kind of renal artery disease is most frequent in patients with renovascular hypertension?

a. Atherosclerosis.
b. Renal artery aneurysm.
c. Fibromuscular dysplasia.
d. Arteriovenous fistula of the renal vasculature.

162. Angiotensin converting enzyme inhibition is used for the functional evaluation of renovascular hypertension:

a. In combination with renal scintigraphy.
b. And causes enhanced renal function in the diseased kidney.
c. And causes a marked decrease in systemic arterial blood pressure.
d. Only combination with divided renal vein renin sampling and duplex Doppler ultrasonography.

163. What method is the best method for detecting urinary leakage caused by ureteric fistula after renal transplantation?

a. Cystography.
b. Ultrasonography.
c. Intravenous pyelography.
d. Percutaneous pyelo-ureterography.

164. The most important side effect of cyclosporin is:

a. Hepatotoxicity.
b. Nephrotoxicity.
c. Carcinogenicity.
d. Bone marrow toxicity.

38. The percentage of patients with CIS of the bladder that will respond to intravesical BCG instillations, is:

a. < 20%.
b. 30 - 40%.
c. 50 - 70%.
d. > 90%.

39. The risk of progression to muscle invasive disease of T1G3 tumours of the bladder is:

a. 10 - 15%.
b. 20 - 30%.
c. 35 - 50%.
d. 60 - 70%.

40. In RCC:

a. VEGF is the only angiogenic factor elevated.
b. VEGF is primarily derived from endothelial cells.
c. VHL mutation may result in upregulation of VEGF.
d. Micro vessel density analysis is relatively easy because of the high number of microvessels.

41. Which statement is correct?

a. P53 immunohistochemistry is accepted to be inversely correlated to prognosis in urothelial cancer.
b. DNA aneuploidy after intravesical treatment of superficial tumours has good prognostic features in urothelial cancer.
c. Molecular markers have a higher prognostic power than tumour morphology, stage and grade in predicting tumour progression.
d. The most important area in urothelial cancer tissue marker development would be to predict which non-invasive tumours are likely to recur and/or to progress.

42. Ki67:

a. Is a marker of apoptosis.
b. Protein has a long half-life.
c. Antigen is distributed throughout the cell.
d. Antibody reacts only with proliferating cells.

43. The aromatase enzyme converts:

a. Androgens to oestrogens.
b. Oestrogens to androgens.
c. Glucocorticoids to progestins.
d. 17 - oxo to 17 - hydroxysteroids.

44. BCG intravesical therapy:

a. Does not delay progression.
b. Can significantly delay progression.
c. Does influence progression but not significantly.
d. Not effective at all in non-muscle invasive bladder cancer.

45. Rectal examination may be omitted from future algorithms of screening for prostate cancer because:

a. It selectively detects aggressive cancers.
b. It selectively detects non-aggressive cancers.
c. Its predictive value is poor in low PSA ranges.
d. It is unnecessary and unpleasant for patient and doctor.

46. Laparoscopic partial nephrectomy:

a. Does not need any pedicle clamping due to the gas pressure.
b. Is technically one of the most difficult procedures laparoscopically.
c. Allows better control of resection margins through the magnification of image.
d. Does not have any additional morbidity compared to open partial nephrectomy.

NEPH

156. Which of the following is a typical feature of renal failure?

a. Hyperkalaemia.
b. Hyperchloraemia.
c. Metabolic alkalosis.
d. Respiratory acidosis.

157. In relation to renal transplantation:

a. Acute allograft renal rejection is initially treated by intravenous steroids.
b. Hyperacute rejection is common and can be treated with intravenous steroids.
c. Live related kidney donation provides results that are equivalent to deceased donation.
d. Only ABO blood group matching of donor and recipient is necessary to maximize the graft survival rate.

158. Intra-operative optimisation of the renal graft includes:

a. Keeping a CVP of less than 5mmHg.
b. Increasing the warm ischaemic time.
c. Infusion of mannitol at a dose of 5mg/kg.
d. Maintaining a good perfusion pressure to the graft.

159. Which statement in the treatment of urolithiasis patients is not correct?

a. NSAID can reduce the renal resistant index in colic patients.
b. Diclofenac sodium equally affects GFR in patients with reduced and normal renal function.
c. Diclofenac sodium is recommended for treatment of recurrent pain after an episode of ureteral colic.
d. When pain relief cannot be obtained by medical means, drainage by stenting or percutaneous nephrostomy or by stone removal should be carried out.

154. Regarding surgery to treat interstitial cystitis (IC):

a. Higher pre-operative bladder capacity is predictive of better outcome of ablative surgery for IC.
b. In IC patients refractory to conservative therapies, urethro-cystectomy ensures pain relief.
c. Ablative surgery is considered only in patients who failed IC management by conservative options.
d. In terms of IC symptom relief, subtrigonal cystectomy gives better results than supratrigonal cystectomy.

155. With respect to Vesicovaginal fistulae (VVF) and their repair:

a. Martius flaps have an anterior based blood supply.
b. In Europe VVFs are most commonly due to birth trauma.
c. Success rates for fistula closure are best at the first attempt.
d. VVFs lead to urinary incontinence that typically resolves at night.

47. Nomograms are commonly used for preoperative risk assessment before nerve-sparing radical prostatectomy.
Which of the following is not a typical parameter analyzed for stage estimation?

a. PSA.
b. Clinical stage.
c. Gleason score.
d. Prostate volume.

48. Local recurrences after elective nephron sparing surgery for renal cell cancer occur in:

a. < 5 %.
b. 20%.
c. 40%.
d. 100%.

49. A unique complication of transperitoneal laparoscopic radical prostatectomy is:

a. Uroperitonitis.
b. Osteitis pubis.
c. Inability to perform nerve sparing.
d. Transient lower extremity neuropraxia.

50. Regarding the positive surgical margins in radical prostatectomy which statement is correct?

a. All patients with positive surgical margins develop clinical progression of their disease.
b. Improved surgical technique has played no role in reducing the incidence of positive surgical margins in pT2 disease.
c. The extraperitoneal laparoscopic approach leads to higher positive surgical margin rate than the transperitoneal one.
d. Serum PSA, Gleason grade, surgeon and clinical stage are most commonly used parameters to predict likelihood of positive surgical margins.

51. The strongest indication for deciding to recommend a prostate biopsy is based on:

a. PSA.
b. PCA3 score.
c. PSA velocity.
d. PSA isoforms

52. The presence of a positive margin after a radical prostatectomy means that the chance for biochemical recurrence within 5 years from the date of surgery is approximately:

a. 20-30%.
b. 30-40%.
c. 40-50%.
d. 60-70%.

53. Twelve days following undergoing a radical prostatectomy, PSA is still detectable. What should be recommended?

a. Radiotherapy.
b. Start androgen blockade.
c. Order PET in order to decide between radiotherapy and androgen blockage.
d. PSA should not be done before 8-12 weeks following radical prostatectomy.

54. In relation to the different molecular forms of PSA:

a. The serum concentration of complexed PSA is similar as the concentration of serum free PSA.
b. The serum concentration of free PSA is always smaller than the serum concentration of total PSA.
c. The serum concentration of free PSA is usually higher than the serum concentration of complexed PSA.
d. In very undifferentiated tumours, the serum concentration of free PSA can be higher than the serum concentration of total PSA.

150. Neuromodulation for lower urinary tract dysfunction can not be applied at the level of:

a. The pudendal nerve.
b. The sacral nerve S1.
c. The sacral nerve S4.
d. The posterior tibial nerve.

151. A 26 year old woman complains on recurrent dysuria refractory to medical management. Because of severe pain, urethrocystoscopy was only feasible in anaesthesia revealing no pathological finding. MRI demonstrates a paraurethral collection of contrast medium. The most likely diagnosis is:

a. Cystocele.
b. Urethral polyp.
c. Urethral prolapse.
d. Urethral diverticulum.

152. A 44 year old male has among other injuries a cervical spinal lesion following a car accident. If you perform a urodynamic investigation after approximately 4 weeks, spinal shock urodynamic study shows all except for:

a. Bladder areflexia.
b. Acontractile bladder.
c. Absence of the guarding reflex.
d. A maximum urethral closing pressure which is higher than normal.

153. In the management of stress urinary incontinence:

a. Electrical stimulation is highly efficacious.
b. Pharmacotherapy is widely used and has few side effects.
c. Physiotherapy is effective in up to 75% of cases in the short term.
d. Hormone replacement therapy has clearly been shown to be effective as treatment for stress incontinence.

145. Interstitial cystitis is most typically associated with:

a. Urethral pain on micturition.
b. Suprapubic pain on micturition.
c. Suprapubic pain after micturition.
d. Suprapubic pain with a full bladder.

146. Six weeks after a TVT procedure, a 45 year old lady returns to the clinic with a vaginal erosion of the tape. What is the most appropriate treatment?

a. Excision of the whole tape.
b. Excision of the visible part of the tape.
c. Vaginal flap raised to cover the eroded tape.
d. No tape excision at all (since it will heal spontaneously).

147. A pressure increase in the proximal urethra occurs after stimulation of the:

a. Pelvic plexus.
b. Pudendal nerve.
c. Hypogastric nerves.
d. Genitofemoral nerve.

148. Which subtype of muscarinic receptors is primarily responsible for bladder contractility?

a. M1.
b. M2.
c. M3.
d. M4.

149. With respect to Vesicovaginal fistulae (VVF) and their repair:

a. In Europe VVFs are most commonly due to birth trauma.
b. VVFs lead to urinary incontinence that typically resolves at night.
c. Success rates for fistula closure are best at the first attempt.
d. Martius flaps have an anterior based blood supply.

55. The gender ratio for bladder carcinoma (men:women) is:

a. 1:1.
b. 1:3.
c. 3:1.
d. 10:1.

LITH

56. Which is an absolute contra–indication for ESWL?

a. Pregnancy.
b. Morbid obesity.
c. Untreated urinary tract infection.
d. Obstruction of the collecting system.

57. In cases of renal struvite stones, prevention of recurrence after the patient has been rendered stone-free is best done by:

a. Urine acidification.
b. Urine alkalinisation.
c. Corticosteroid therapy.
d. Administration of anti-inflammatory drugs.

58. Which statement in respect to citrate is incorrect?

a. It filters freely through the glomerulus.
b. Most of the circulating citrate is derived from endogenous oxidative metabolism.
c. Approximately 75% of the filtered citrate is re-absorbed in the distal convoluted tubule.
d. The most established effect of citrate is to complex with Calcium and thereby reduce the concentration of Calcium oxalate.

59. Macroscopic hematuria with colics, 2 weeks after percutaneous nephrolithotomy requires:

a. Conservative management with bedrest.
b. Surgical revision.
c. Renal angiography with superselective embolization.
d. Insertion of JJ stent.

NEUR

141. Multiple sclerosis typically causes all of the following except:

a. Detrusor hyperreflexia.
b. Poor bladder emptying.
c. Bladder neck dyssynergia.
d. Detrusor external sphincter dyssynergia.

142. When comparing a transvaginal mid urethral tape (TVT), with a transobturator mid urethral tape (TOT), TVT is more likely to:

a. Result in perineal pain as the TOT.
b. Make the patient dry than the TOT.
c. Result in bladder injury than the TOT.
d. Lead to urethral erosion than the TOT.

143. Idiopathic detrusor overactivity can be effectively treated by all of the following except:

a. Neuromodulation.
b. Antimuscarinic agents.
c. Intravesical botulium toxin.
d. Alpha adrenergic blocking drugs.

144. A 26-year old man has a history of recurrent urethral strictures treated by optical urethrotomy (4 recurrences over 5 years). A urethrogram shows a 4 cm stricture of his bulbar urethra. Which will give him the best chance of long term cure?

a. Optical urethrotomy.
b. Anastamotic urethoplasty.
c. Substitution urethroplasty.
d. Optical urethrotomy and intermittent self-catheterization.

138. What is the most appropriate investigative plan for a a 65 year old lady who presents with recurrent coliform urinary tract infections:

a. Mid stream urine.
b. Mid stream urine, ultrasound urinary tract.
c. Mid stream urine, ultrasound urinary tract, cystoscopy.
d. Mid stream urine, ultrasound urinary tract, cystoscopy, micturating cystogram.

139. Which type of prostatitis (according to the NIH classification) is characterized by the absence of white cells in the MSU, the EPS and the VB3 of the traditional Stamey test?

a. Type II prostatitis.
b. Type IIIa prostatitis.
c. Type IIIb prostatitis.
d. Type IV prostatitis.

140. When treating a young woman with a proven coliform urinary tract infection (cystitis), to which of the following antibiotics is the infecting organism most likely to be resistant?

a. Cephradine.
b. Ciprofloxacin.
c. Nitrofurantoin.
d. Trimethoprim.

60. Which is the best treatment for a lower pole stone of 20 mm?

a. ESWL.
b. Flexible ureteroscopy.
c. Percutaeous nephrolithotripsy.
d. No active treatment indicated.

61. Tamm Horsfall Protein can lose inhibiting activity if urine has:

a. High pH.
b. High concentration of Sodium.
c. High concentration of Calcium.
d. High concentration of Calcium ions.

62. Substrate for heterogeneous nucleation in Calcium oxalate stone formation includes all of the following, except:

a. Bacteria.
b. Uric acid.
c. Epithelial cells.
d. Calcium oxalate.

63. During ureteroscopy for an upper ureteric calculus, the surgeon recognizes a significant hole in the middle third of the ureter, before he even reaches the ureteric stone.
The most appropriate treatment is:

a. Insertion JJ stent.
b. Percutaneous nephrostomy.
c. Cessation of ureteroscopy with no further intervention.
d. Open exploration of the ureter with primary repair of the defect.

64. A patient presenting with first episode of urinary stones:

a. Only needs stone treatment.
b. Should have a full metabolic analysis.
c. Should have a basic blood evaluation (creatinine, Calcium, uric acid).
d. Only needs full metabolic evaluation if invasive treatment is planned.

65. An important cause for stone formation in a urinary reservoir is:

a. Mucus production.
b. Incomplete emptying.
c. Reservoir constructed with ileum.
d. Intestinal lithogenic products secreted in the reservoir.

66. An established risk factor for stone formation is:

a. Race.
b. Genetic.
c. Hormonal.
d. Profession.

67. In laser treatment of LUTS due to bladder outflow obstruction:

a. The maximum volume that can be treated is 60 cc.
b. The main advantage is the higher speed of tissue removal.
c. Thulium laser uses continuous wavelength, which allows a better view.
d. Greenlight laser treatment has the advantage that tissue is available for histological examination.

68. Which of the following urinary calculi is radiolucent?

a. Uric acid.
b. Mixed stones.
c. Calcium oxalate.
d. Magnesium ammonium phosphate hexahydrate.

69. Uric acid urinary calculi:

a. Never grow to a large size.
b. Are resistant to shockwaves.
c. Can be dissolved by oral sodium bicarbonate.
d. Should be treated by percutaneous nephrolithotomy.

INF

134. Which of the following most likely characterises cystitis emphysematosa?

a. Follicular cystitis caused by yeast.
b. Urinary cystitis by gas producing bacteria.
c. Radiocystitis with cystic alteration of the bladder mucosa.
d. Bladder mucosa changes due to vesico-cutaneous fistula.

135. A perinephric abscess of 5 cm should be treated by:

a. Antibiotics i.v.
b. Percutaneous nephrostomy under antibiotic coverage.
c. Retroperitoneal drainage under antibiotic coverage.
d. Endoureteral stenting of the renal pelvis under antibiotic coverage.

136. Schistosomiasis of the urinary tract:

a. Is endemic in Eastern Europe.
b. Is due to Schistosoma Japonicum.
c. Can result in severe ureteric stricture.
d. Can result in adenocarcinoma of the bladder.

137. A 25 year old man present with a 2 day history of right testicular pain. On examination he has a tender right epididymis, a mild fever (37.4 degrees C) and pus cells on urinary dipstick.
Which of the following is true?

a. He should be treated with oral ciprofloxacin.
b. He should be treated with oral trimethoprim.
c. He needs urgent scrotal exploration to exclude testicular torsion.
d. This condition has most likely arisen secondary to a urinary tract infection.

130. Autonomic dysreflexia:

a. Can be prevented by alpha blockers.
b. Rarely occurs during cystoscopy when the lesion is below L2.
c. May occur during a urodynamic study when the lesion is below L3.
d. May occur during a urodynamic study when the lesion is above T6.

131. The Bladder Outlet Obstruction Index (BOOI) is defined as:

a. Pdet Qmax – Qmax.
b. Pdet Qmax – 2Qmin.
c. Pdet Qmax– 2Qmax.
d. Pdet Qmin – 2Qmax.

132. During a urodynamic study urine leakage occurs following a cough, while the cough provokes a detrusor contraction.

a. A TVT can be safely performed.
b. This is called stress urinary incontinence.
c. This is called overactive bladder induced by coughing.
d. This means that the study has not been performed correctly.

133. In LUTS:

a. Voiding symptoms are the most bothersome.
b. Storage symptoms are as frequent in men as in women.
c. Storage symptoms are less frequent than voiding symptoms.
d. Nocturia occurs more frequently in women compared to men.

70. Double pigtail stents:

a. Cause ureteric dilatation.
b. Enhance ureteric contractility.
c. Should always be used with ESWL.
d. Do not cause lower urinary tract symptoms.

71. D-penicillamine acts by:

a. Increasing diuresis.
b. Increasing the urine pH above 7.
c. Producing a mixed disulfide of greater solubility.
d. Increasing the cystine reabsorption in the level of the proximal tubule.

72. During ureteroscopy the ureter was perforated, but the obstructing stone was also removed. What additional measure should be performed?

a. Placement of an indwelling JJ stent.
b. Antibiotics and watchful waiting only.
c. Placement of a percutaneous nephrostomy.
d. Placement of a ureteric catheter for 24 hours draining through the urethra.

73. The optimal initial treatment of a >3 cm diameter stone in the collecting system is:

a. ESWL.
b. Open surgery.
c. JJ stenting and ESWL.
d. Percutaneous lithotripsy.

74. The major risk factor for calcium phosphate precipitation in urine is an increase in:

a. pH.
b. Oxalate.
c. Calcium.
d. Phosphate.

75. The most appropriate treatment to reduce the incidence of recurrent calcium oxalate containing stones is:

a. Furosemide.
b. Increase fluid intake.
c. Reduced calcium intake.
d. Sodium phosphate cellulose.

76. Haematuria after ESWL:

a. Usually resolves within 24 hours.
b. Only occurs after prolonged treatment.
c. Does not occur in the absence of calculi.
d. Is mainly caused by urothelial damage by stone fragments.

77. Recognised complications of ESWL include all of the following except:

a. Sepsis.
b. Reduced GFR.
c. Gastro-intestinal perforation.
d. Urethral stricture.

78. The pathogenesis of calcium lithiasis in sarcoidosis relates to:

a. Renal tubular acidosis.
b. Resorptive hypercalciuria.
c. Idiopathic hypercalciuria.
d. An increase in the production of 1,25 dihydroxy-vitamin D.

79. The pathogenesis of oxalate calculi in Crohn's disease relates to:

a. Congenital oxalosis.
b. Metabolic alteration of glyoxylate.
c. Increased colonic absorption of oxalate.
d. An increase of ascorbic acid in the blood.

126. The major difference between finasteride and dutasteride is:

a. Finasteride has less side effects related to sexual function.
b. Dutasteride inhibits both isoforms of the enzyme 5 α-reductase.
c. Dutasteride achieves a bigger reduction in prostate volumes and IPSS
d. Only dutasteride has shown that it can reduce the risk of acute urinary retention.

127. Concerning the efficacy of α-blockers, it has been shown that:

a. All α-blockers have similar efficacy.
b. They reduce the IPSS by approximately 10-15%.
c. Their action can be maintained over at least 8 years.
d. They increase the maximum urinary flow rate by approximately 50-55%.

128. Concerning the mechanism of action of α-adrenoreceptor antagonists (α-blockers) it has been shown that:

a. They act on prostate smooth muscle via α1b adrenoreceptors.
b. They act by inhibiting the effect of endogenously released noradrenaline.
c. Treatment associated improvement of LUTS is strongly correlated with obstruction.
d. Alpha-blockers have a strong effect on urodynamically determined bladder outlet obstruction.

129. Which statement regarding the urodynamic findings in elderly men with LUTS is correct?

a. Less than 20% of elderly men are urodynamically obstructed.
b. More than 90% of elderly men with LUTS are urodynamically obstructed.
c. Detrusor overactivity is present in less than 20% of elderly men with LUTS.
d. There is a close correlation between detrusor overactivity and bladder outflow obstruction.

FUNC

122. Which of the following is associated with urge incontinence?

a. Descensus uteri.
b. Overactivity of the detrusor muscle.
c. Decreased tone of the internal urethral sphincter.
d. Delayed desire to urinate during bladder filling for cystoscopy.

123. Among α-adrenoreceptors of the prostate which is considered to play the primary role in prostatic contraction?

a. α-1a.
b. α-1b.
c. α-1c.
d. α-1d.

124. Obstruction of the lower urinary tract is defined by:

a. An enlarged prostate on a DRE.
b. An abnormally decreased flow rate.
c. Detrusor pressure and flow rate during voiding.
d. A visual narrowing of the tract upon cystoscopy.

125. Among the five muscarinic receptor subtypes (M1-M5), that have been described in humans, the predominant subtypes found in the detrusor muscle are:

a. M1-M2.
b. M2-M3.
c. M3-M4.
d. M4-M5.

80. Secretion of parathormone by the parathyroid glands is stimulated by:

a. Hypocalcaemia.
b. Hypercalcaemia.
c. Thyrocalcitonin.
d. Hypocalcaemia and hypophosphatemia.

81. Which statement regarding cystine stones is correct?

a. They represent 10% of all stones.
b. Hemiacidrine is useful but causes hyperphosphatemia.
c. Urine acidification is the easiest way to dissolve concretions.
d. High fluid intake and urinary pH above 7 will reduce the recurrence rate.

82. In patients with urolithiasis:

a. E. Coli is the most frequent pathogen inducing struvite stones.
b. Females present more commonly than males with phosphate containing stones.
c. Split renal function of the affected kidney of less than 20% is not a contraindication for shockwave lithotripsy.
d. There is a strong correlation between the density of stones measured by Computer Tomography and the susceptibility to shockwaves.

PAED

83. In Wilms' tumour:

a. Most cases have a familial aetiology.
b. The WT1 gene is mutated in most cases.
c. The WT1 gene is a tumour suppressor gene.
d. The 5 - year survival rates are now approaching 75%.

84. Which statement about bilateral cryptorchidism is correct

a. 80 - 90% of such patients are infertile.
b. Fertility can be preserved by orchidopexy of one testis.
c. The probability for developing testicular cancer of the testes is low (<10%).
d. Hormonal therapy has been shown to be ineffective for patients with bilateral cryptorchidism.

85. Which of the following radiopharmaceuticals is the best for diuretic renography particularly in neonates:

a. Hippuran.
b. 99mTc-DTPA.
c. 99mTc-MAG3.
d. 99mTc-DMSA.

86. Urethral valves are obstructing membranes that are located at:

a. The bladder neck.
b. The verumontanum.
c. The prostatic urethra.
d. The membranous urethra.

87. The following condition is correlated with posterior urethral valves:

a. Micropenis.
b. Low set ears.
c. Undescended testis.
d. Vesico-urethral reflux.

120. When compared with TURP, minimal invasive therapy may be a suitable treatment choice for a patient who is most concerned about the:

a. Degree of symptom relief.
b. Durability of treatment outcome.
c. Risk of sexual adverse events.
d. Risk of acute urinary retention.

121. A 72 year old pale man presents with increasing fatigue, nausea, foetor ex ore and urinary incontinence. On ultrasonography there is a bilateral massive hydronephrosis and an overdistended urinary bladder.
Which diagnosis is most likely?

a. Diabetic nephropathy.
b. Infravesical obstruction.
c. Multicystic renal dysplasia.
d. Polycystic renal degeneration.

116. Combination therapy (alpha 1-blocker plus 5ARI) for elderly men with LUTS:

a. Is generally contraindicated because of the high rate of side effects.
b. Due to its superior efficacy, combination therapy should be offered to all men with LUTS.
c. Combination therapy should be reserved for men with moderate / severe LUTS and a high risk of progression.
d. Combination therapy is not superior to either monotherapy regarding the long-term outcome of symptoms, Qmax and risk for surgery/AUR.

117. In the Medical Therapy of Prostatic Symptoms (MTOPS) trial the pres ence of inflammation correlates significantly with:

a. Lower PSA values.
b. Symptomatic progression.
c. Smaller prostate volumes.
d. Greater risk of urinary retention due to BPH.

118. In men experiencing LUTS the chronic use of PDE5 inhibitor:

a. Leads to unacceptable side effects of vision change, cardiac concerns and frequent back pain.
b. Is of little value for their urinary symptoms but makes them feel better owing to improved sexual functioning.
c. Improves flow rates but as a consequence of increased sphincter relaxation leads to incontinence in 27% of men.
d. Leads to a treatment response rate similar to alpha blockers (IPSS change 7 points) with no measureable change in flow rate.

119. Transurethral needle ablation (TUNA):

a. Can be performed under local anaesthesia.
b. Is especially suitable for larger prostate volumes exceeding 100 ml.
c. Creates an immediate tissue ablation and thus excludes postoperative urinary retention.
d. Is associated with a higher amount of urethral strictures and ejaculation disorders compared to conventional TURP.

88. What is the embryological anomaly that leads to the formation of a retrocaval ureter?

a. Situs inversus.
b. Abnormal ureteric bud formation.
c. Persistence of the subcardinal vein.
d. Persistence of the supracardinal vein.

89. A 10 month old boy presents with unilateral inguinal testis without other pathology. What is the best type of treatment?

a. Hormonal treatment with HCG or LHRH analogues.
b. Orchidopexy performed before the age of 18 months.
c. Conservative approach until 2 years of age and then orchidopexy.
d. Neoadjuvant hormonal treatment before orchidopexy before the age of 12 months.

90. A 14 year old boy has a continent urinary reservoir with an appendiceal stoma following cystectomy for rhabdomyosarcoma of the prostate. He has not been able to catheterize the reservoir for the past 12 hours. He has severe abdominal pain and the reservoir is palpably distended. The next step is:

a. CT scan.
b. Open cystostomy.
c. Endoscopy of pouch.
d. Suprapubic drainage of the pouch.

91. A one year old boy presents with an empty scrotum, normal size of the penis. In lying position both gonads are palpable pre inguinally. In the cross-legged position, the testes can be manipulated into the scrotum, where they remain until the patient begins to move or strain. What therapy should be recommended?

a. Bilateral orchiopexy.
b. Conservative approach.
c. Hormonal treatment (HCG or LHRH analogues).
d. Conservative approach until 1.5 years and then orchidopexy.

92. In a newborn boy with asymptomatic bilateral vesico-ureteric reflux, grade III-IV, it is recommended to:

a. Start antibiotic treatment with cefaclor (15mg/kg bodyweight).
b. Perform bilateral endoscopic (sub- and/or intra) ureteral injection.
c. Start antiseptic treatment with nitrofurantoin (2mg/kg bodyweight).
d. Start surveillance treatment (monthly urine controls and three monthly ultrasound).

93. A two and a half year old girl is admitted with a febrile UTI.
The diagnostic steps are:

a. Renal ultrasound, DMSA and VCUG.
b. Renal ultrasound and depending on the results further investigation.
c. Renal ultrasound and DMSA and depending on the results further investigation.
d. Renal ultrasound and VCUG and depending on the results further investigation.

94. A 25 year old patient with previously ablated posterior urethral valves develops renal deterioration. His creatinine at the age of one was 40 umol/L and has increased to 250 umol/L now. An ultrasound shows bilateral hydronephrosis when the bladder is full. What is the most likely contributing factor for the development of renal insufficiency?

a. Hypertension.
b. Renal dysplasia.
c. Urethral obstruction.
d. Bladder dysfunction.

95. A 6 week old boy with antenatally detected bilateral megaureter is referred to you. Clinically he is doing well: There is no UTI, and the serum creatinine is normal.
What study should be recommended?

a. MRI.
b. DMSA.
c. Voiding cystourethrography.
d. No study required.

114. Which patient with testicular microlithiasis (TM) should have a testicular biopsy?

a. All men should have a testicular biopsy.
b. A testicular biopsy is only indicated if this is combined with elevated FSH and azoöspermia.
c. A testicular biopsy is indicated if this is combined with an additional risk factor for testicular cancer.
d. There is no clear association between TM and test cular cancer: men should only be advised to perform self-examination of the testis.

115. The Wolffian duct develops between week 7 and 12 of pregnancy.
Which structures will develop from the Wolffian ducts?

a. Testis, prostate and scrotum.
b. Distal ureter, seminal vesicles and urethra.
c. Epididymis, vas deferens and seminal vesicles
d. Vas deferens, seminal vesicles and the prostate.

96. A 9 month old boy old with grade IV left hydronephrosis has an initial differential function of 48% for the left kidney. Ultrasound findings have not changed.
What follow up investigation should be relied upon to continue safely with a conservative approach?

a. Perform VCUG.
b. Repeat ultrasound.
c. Repeat serum creatinine.
d. Repeat the renal scintigraphy.

97. Which finding is suggestive for unilateral renal agenesis?

a. Absent testicle.
b. Large hydrocele.
c. Absent vas deferens.
d. Two umbilical vessels.

98. A neonate with posterior urethral valves, hydronephrosis, bilateral reflux but normal serum creatinine is best treated with:

a. Vesicostomy.
b. Bilateral high diversion.
c. Valve incision or ablation.
d. High diversion combined with valve ablation.

99. According to the Weigert Mayer rule the ureter of the upper pole (in duplex systems):

a. Enters into bladder more caudally.
b. Crosses the distal ureter at least twice.
c. Enters into the bladder more laterally (cranially).
d. Shows reflux as often as the ureter of the lower pole.

109. What is the next step in the evaluation of the azoospermic patient with palpable vasa deferentia, normal-sized testes and normal hormonal studies?

a. Karyotype.
b. Vasography.
c. Testicular biopsy.
d. Detection of mutation.

110. Which isolated pituitary gonadotropic hormone elevation may be associated with azoospermia?

a. LH.
b. FSH.
c. HCG.
d. Prolactin.

111. After placement of a penile prosthesis the penile length will:

a. Increase.
b. Decrease.
c. Be the same as achieved by the patient when he had previous normal erections.
d. Penile length may stay the same, increase or decrease varying from case to case.

112. What is the main objection to Rigiscan recording of nocturnal penile tumescence?
a. Low sensitivity.
b. Sleep disorders may induce pathologic recordings.
c. Poor correlation with psychogenic erectile dysfunction.
d. Measurement rings often get displaced from the penis during sleep.

113. Which condition is not characterised by hypogonadotrophic hypogonadism (low FSH and low LH)?

a. Morbid obesity.
b. Kallmann`s syndrome.
c. Klinefelter`s syndrome.
d. Anabolic steroids abuse.

100. Oligozoospermia according to (World Health Organization) criteria is defined as a sperm count of less than:

a. 15 millions/ml.
b. 20 millions/ml.
c. 40 millions/ml.
d. 50 millions/ml.

101. Which drug may be an alternative for the oral treatment of recurrent priapism?

a. Alfuzosin.
b. Tamsulosin.
c. Isoproterenol.
d. PDE5 inhibitors.

102. Which is the primary treatment option for an azoospermic man who underwent bilateral vasectomy 6 years previously and now wishes another child?

a. Vaso-vasostomy.
b. Epididymo-vasostomy.
c. Testicular sperm extraction (TESE).
d. Implantation of an alloplastic artificial spermatocele.

103. A 35 year old man is investigated for erectile dysfunction. After an intracavernous injection test of 10 µg of prostaglandin E1, he developed a good erection which lasts for more than 4 hours.
Which initial approach is now recommended?

a. Careful observation.
b. Aspiration of the corpora.
c. Angiographic embolisation.
d. Intracavernous injection of 250 - 500 µg of alpha adrenergic substance.

104. The best established test for differentiating retrograde ejaculation from failure of emission (anejaculation) is:

a. Transrectal ultrasonography (TRUS) during ejaculation.
b. Vasography.
c. Determination of fructose levels in the semen.
d. Microscopy of a postejaculatory centrifuged urine sample.

105. Premature ejaculation:

a. Is psychological in almost all cases.
b. May represent a manifestation of serious neurological disease.
c. Should always be treated using behavioural techniques such as the 'squeeze' technique.
d. Is not amenable to pharmacological treatment.

106. Appropriate further management of an azoospermic patient with a low-volume ejaculate containing no detectable fructose would include:

a. Electro-ejaculation.
b. Ephedrine sulphate 25 mg one hour before intercourse.
c. Testicular biopsy.
d. TRUS, followed by vasography if diagnosis still not clear.

107. Kalman syndrome is due to a disorder of the:

a. Leydig cells.
b. Hypothalamus.
c. Pituitary.
d. Suprarenals.

108. A 63 year old male complains of severe dysuria and putride discharge after having had unprotected intercourse. The symptoms improved slightly after a 5 day course of oral 250mg ciprofloxacin b.i.d. Following a urethral swab, what would be the best empirical treatment?

a. Doxycycline.
b. Levofloxacin.
c. Ampicillin/ Sulbactam.
d. Ceftriaxone plus doxycycline.